

IBM

"Selectric" Typewriter

Service Manual
Supplement

S241-6176-0

IBM "Selectric" III Typewriter (670X)

INTRODUCTION

The purpose of this manual is to describe the operational theory and a sequence of adjustments to help in servicing the "Selectric" III Typewriters' additional features. This manual covers the following (670X) models:

| MACHINE TYPE | MODEL CODE |
|---|------------|
| 13.5" Single Pitch Fabric | 6701 |
| 13.5" Single Pitch Non-Correcting | 6702 |
| 15.5" Single Pitch Correcting. | 6703 |
| 13.5" Dual Pitch Correcting | 6704 |
| 15.5" Dual Pitch Correcting | 6705 |

It is necessary for those who use this manual to be familiar with operator instructions. It is suggested that the "Selectric" Adjustment Parts Manual (F/N 241-5939) and the "Selectric" Service Manual (F/N 241-5615) be used with this manual. Also, the special tools listed in the "Selectric" Service Manual may be used as required.

The Machine Introduction section of this manual supplement includes the functions and applications of the "Selectric" III Typewriter.

The Functional Check section is shown in a sequence so that important functions of the machine are checked for proper operation. However, this check does not necessarily follow the sequence of operational theory and adjustments within the manual. The functional check should be used to help locate problems on the machine.

The mechanism sections of this manual are separated into two parts: operational theory and adjustment.

In the adjustment section, adjustments are in the sequence that they are to be made. When an adjustment is made, all adjustments that follow in that mechanism must be checked to ensure that this adjustment did not affect an adjustment later in the sequence. The part to be adjusted and the direction the part must be adjusted are printed in red. When required, the view, the model of machine, level of design and mode or condition of the equipment is noted under the drawing. There may be times when adjustment sequences or tolerances differ from those in other related publications. However, the publication with the latest date should normally be considered the most current.

The Removal Procedures section is a numbered sequence of instructions for parts removal. The part can be assembled by reversing the removal steps.

If a complete drawing of an assembly is required, the parts section of the Adjustment Parts Manual should be used.

MACHINE INTRODUCTION

The "Selectric" III Typewriter has a new cover design and additional features.

Following is a list of the differences between the Correcting "Selectric" II and the "Selectric" III Typewriters.

- The multiple copy control lever has been removed.
- New platen knobs
- New margin set levers and indicators
- See-through margin scale for single pitch models
- Lighted see-through margin scale for dual pitch models
- Combination page-end indicator and paper support
- 54-tooth ratchet standard on all models
- New design for optional soundhood
- External paper bail control lever
- Keyboard arrangements for 92-, 94- or 96-characters (92-character standard)
- Uses 96-character type element
- Uses new keybuttons

The machine identification number (Figure 1), on the left side of the power frame, has 15 digits. The numbers are used to identify the following information: product code, model code, plant code, and machine serial number.

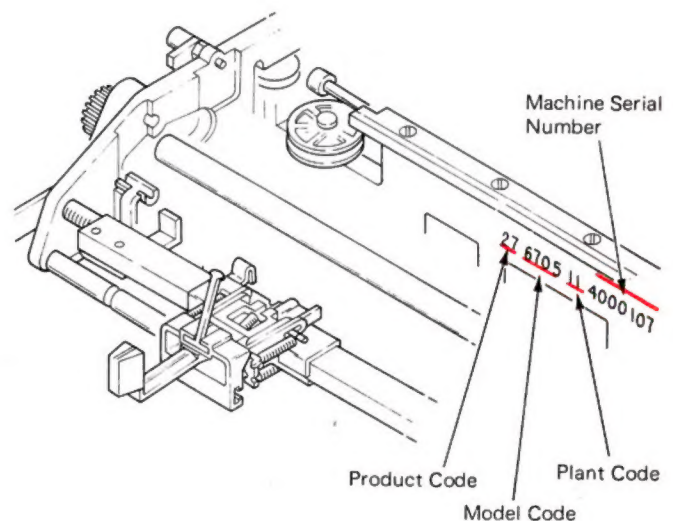
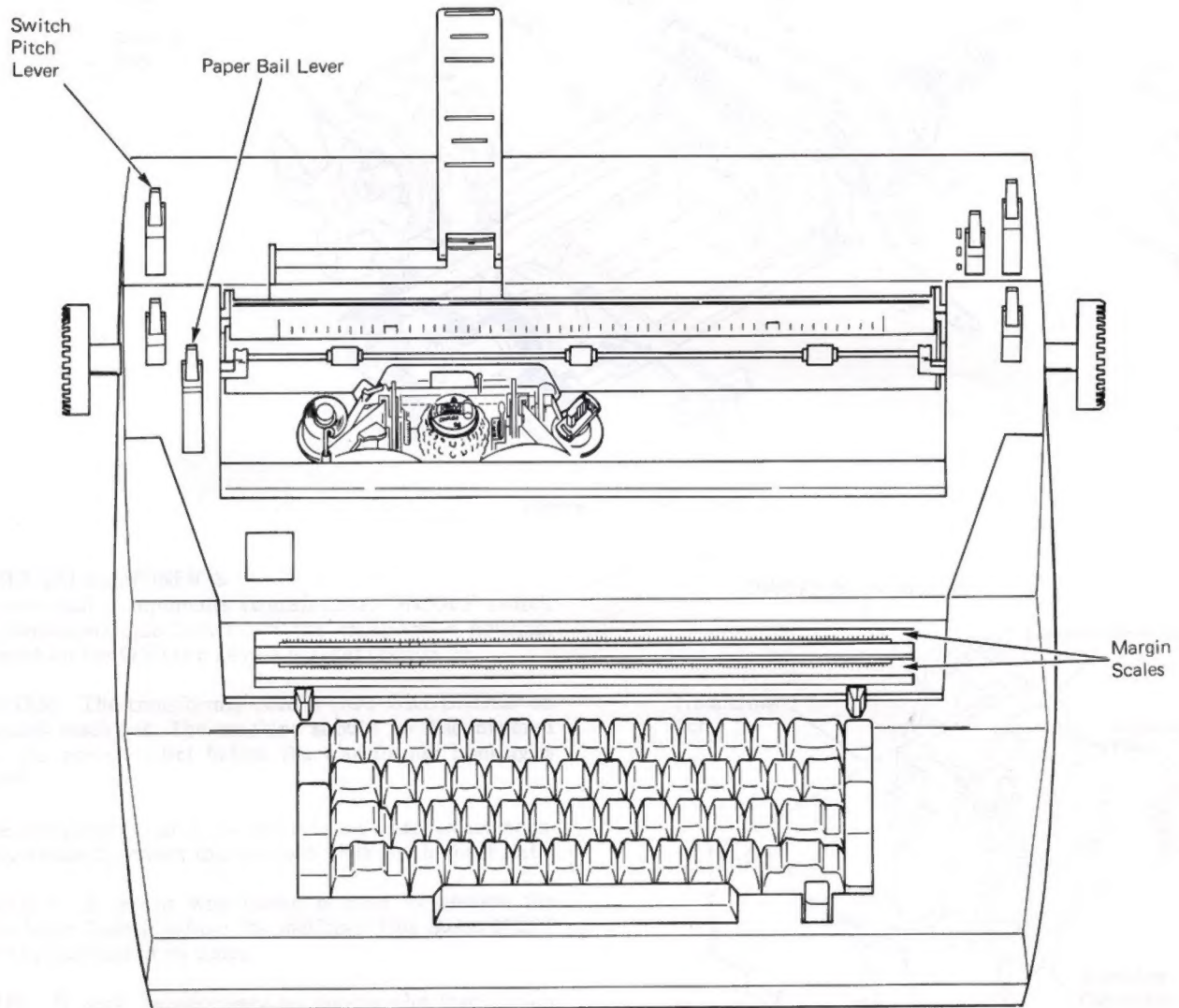


Figure 1 – Machine Identification Number

FUNCTIONAL CHECK

The "Selectric" III Typewriter functional check is the same as the "Selectric" II Typewriter functional check, plus the following steps:

1. Type all characters and check for proper selection.
2. Dual Pitch Only — With machine "on" and the switch pitch lever set to 10 pitch, the top margin scale should light. With the switch pitch lever in the 12 pitch position, the bottom margin scale should light. Operate the switch pitch lever several times to verify that the lighted scale matches the selected pitch.



MOTOR

The motor has a shaft extending from both ends. The right end of the motor shaft drives the centrifugal clutch. The motor shaft is extended to mount a cooling fan. The fan is used on machines with the optional sound reduction feature only (Figure 1).

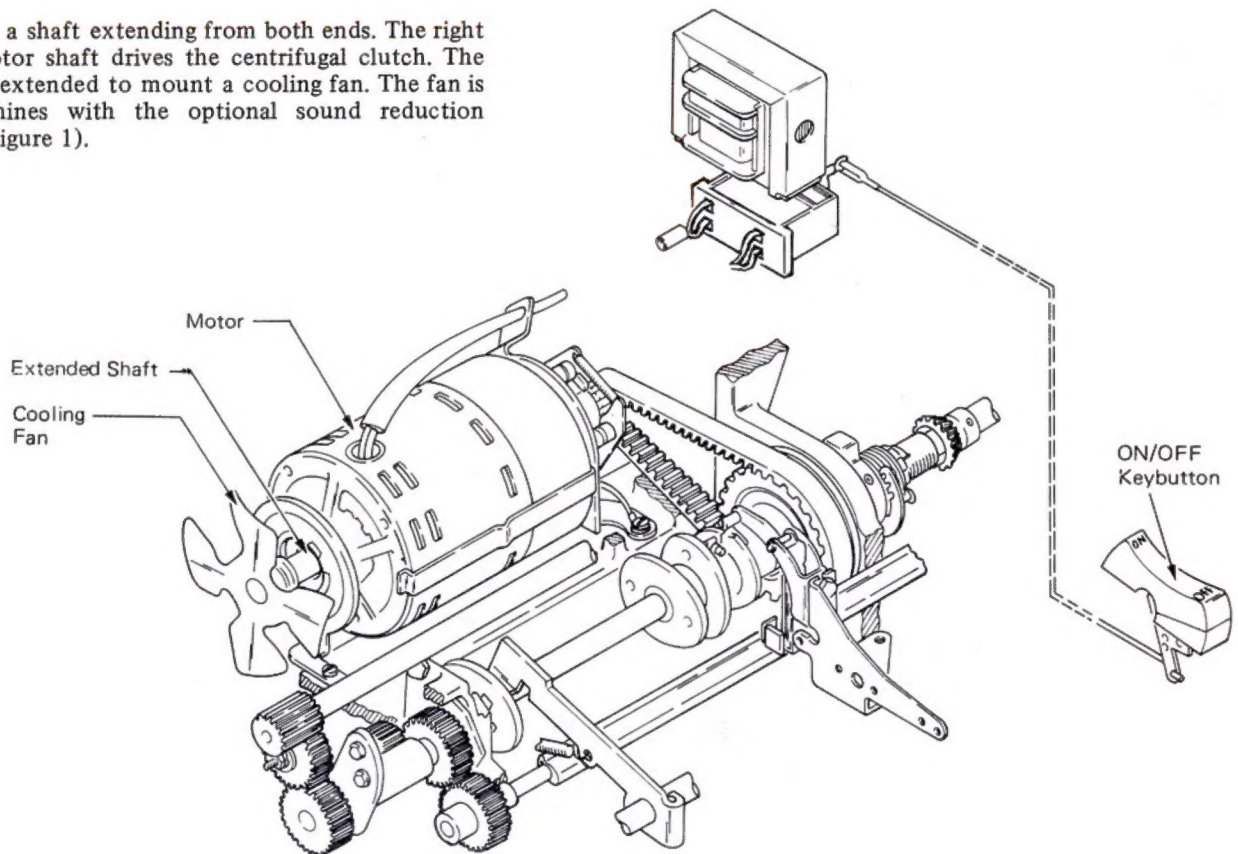


Figure 1 – Drive Mechanism

ELECTRICAL COMPONENTS

The electrical components (transformer, ON/OFF switch and connectors) are located in the transformer housing, mounted on the ON/OFF switch bracket (Figure 2).

DANGER: The transformer core is **NOT GROUNDED** on grounded machines. The machine should be disconnected from the power outlet before the transformer housing is opened.

These components can be accessed in the transformer housing by removing either the linecord plate or the backplate.

CAUTION: A motor wire clamp is used to prevent the motor leads from touching the machine. This clamp **MUST** be in the machine at all times.

NOTE: It may be necessary to remove the transformer housing as a complete unit to make adjustments or to replace parts. This procedure is in the Removal section of this manual.

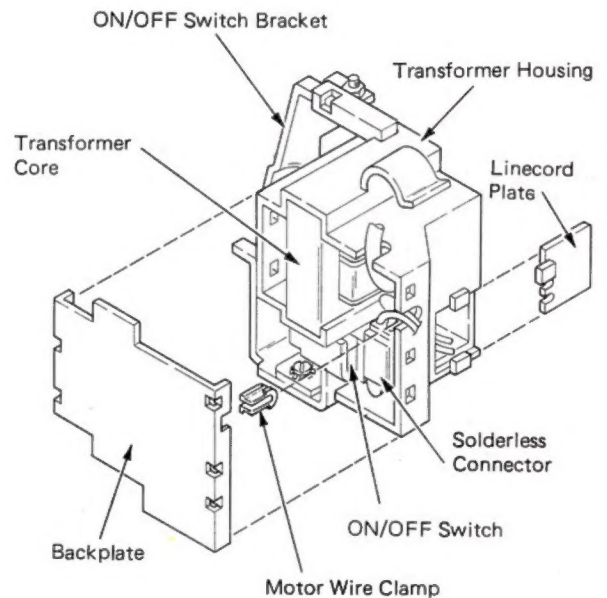


Figure 2 – Transformer

ELECTRICAL WIRING

The linecord and primary transformer leads are plugged directly into the ON/OFF switch (Figure 3). The motor leads are connected to the transformer leads with "solderless" connectors. (See Removal section for removal of solderless connectors.)

NOTE: Single-pitch "Selectric" III Typewriter wiring remains the same as the "Selectric" I and II Typewriters.

DANGER: The transformer core is NOT GROUNDED. The machine should be disconnected from the power outlet before the transformer housing is opened.

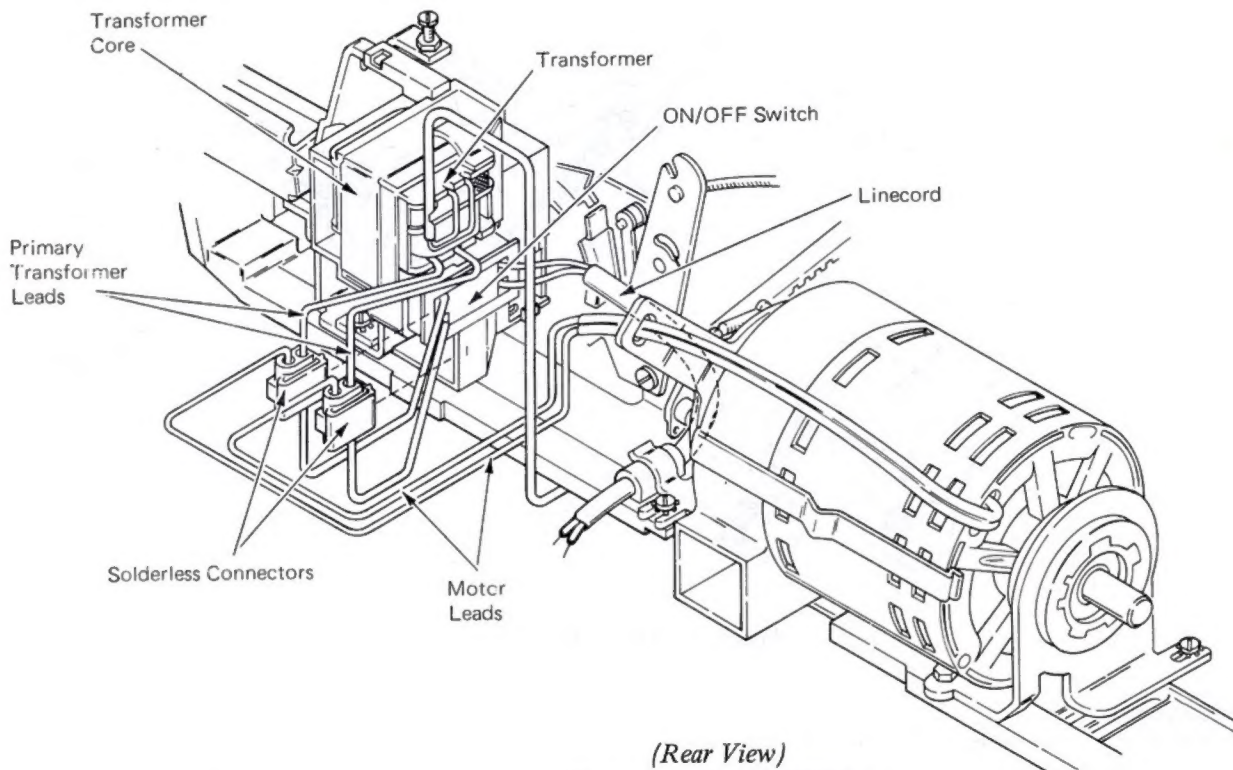


Figure 3 - Electrical Wiring

The wiring for a dual-pitch machine with a two-wire linecord, a shaded pole motor, and double insulation is shown in Figure 4.

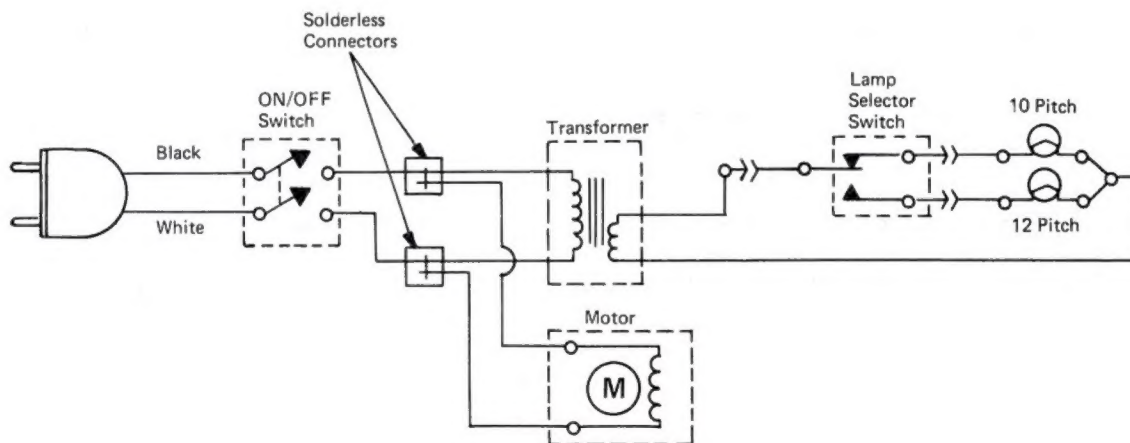


Figure 4 - Two-Wire Diagram

The wiring for a dual-pitch machine with a three-wire line-cord and a shaded pole motor is shown in Figure 5. This is called a grounded machine.

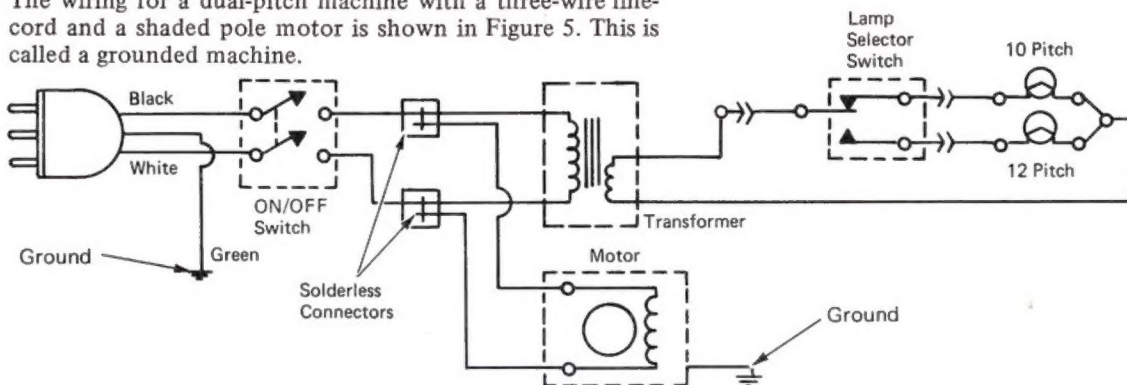


Figure 5 - Three-Wire Diagram

WORLD TRADE WIRING DIAGRAMS

NOTE: Figure 6 is a reference drawing for Figures 7, 8, 9, and 10.

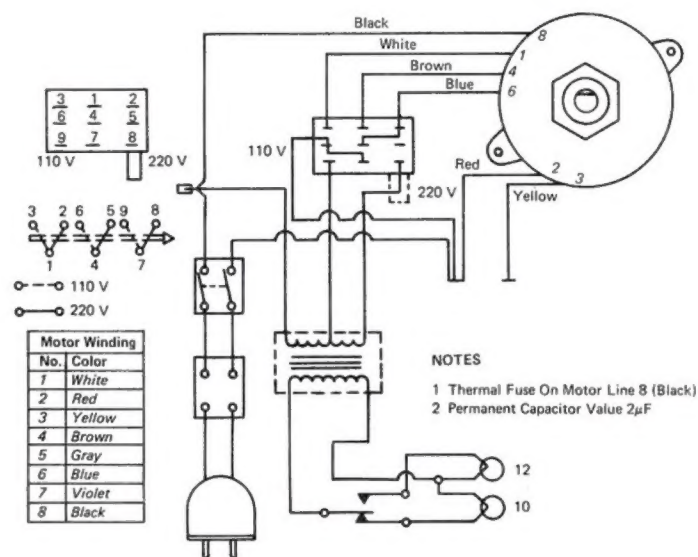


Figure 6 - 110/220 V Machine

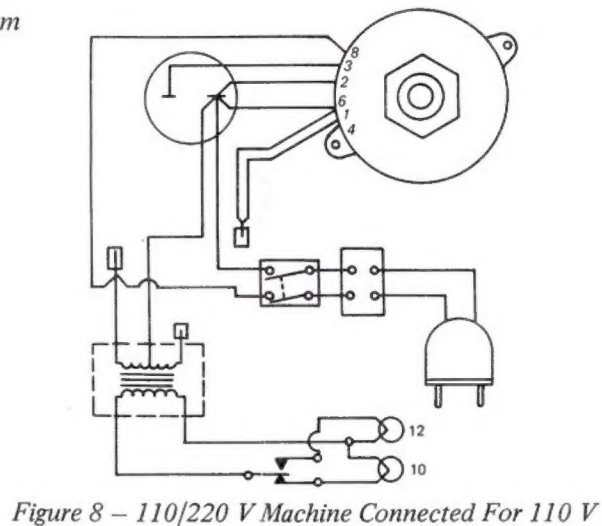


Figure 8 - 110/220 V Machine Connected For 110 V

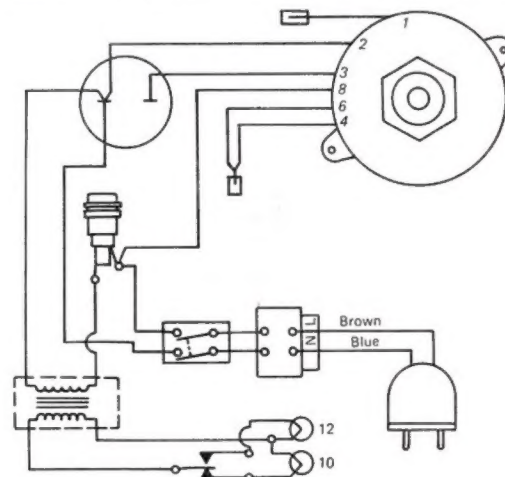


Figure 9 - 240 V Machine U.K.

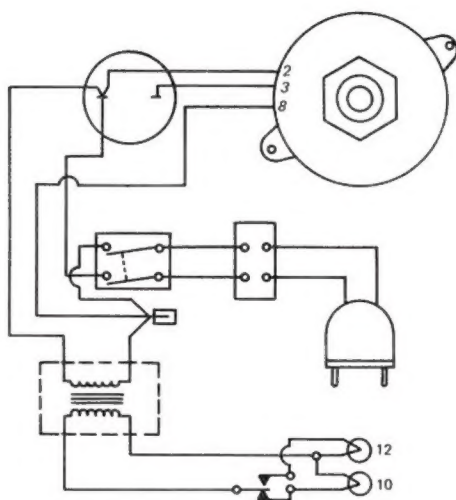


Figure 7 - 220/240 V Machine

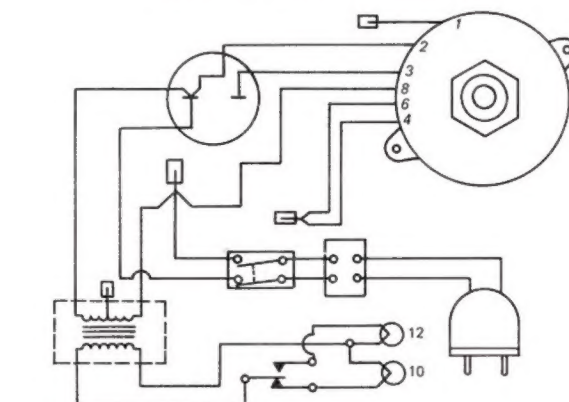


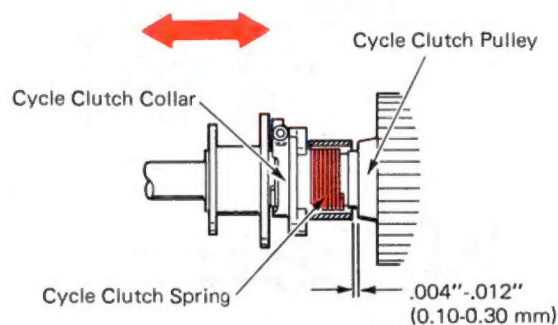
Figure 10 - 110/220 V Machine Connected For 220 V

MOTOR AND DRIVE ADJUSTMENTS

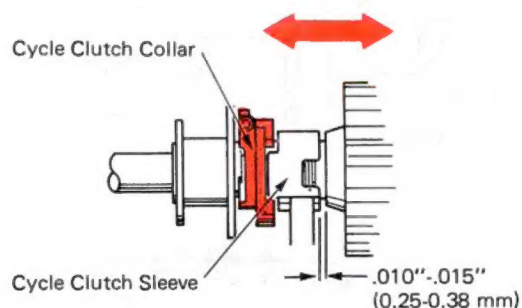
NOTE: Make adjustments 1-3 as shown in the "Selectric" Service Manual (F/N 241-5615). Adjustment 4 should be made according to the procedure given below. Adjustments 5-7 should be made as described in the "Selectric" Service Manual (Motor and Drive Adjustment section).

4. *Cycle Clutch* — The cycle clutch must be adjusted to satisfy the following conditions:

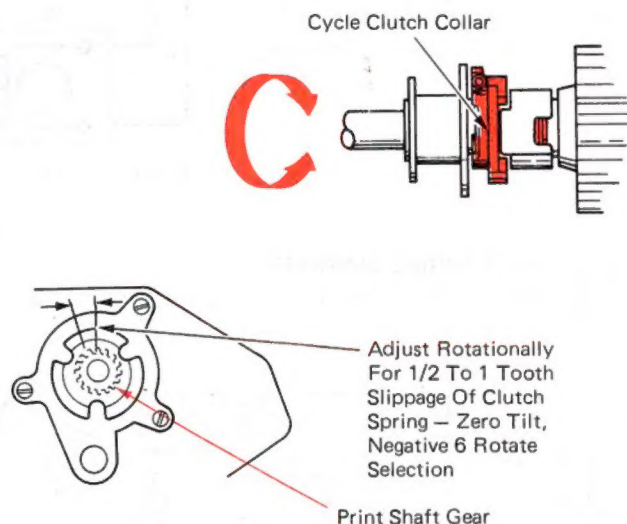
- The spring must clear the face of the cycle clutch pulley by .004"-.012" (0.10-0.30 mm).



- Position the collar left to right so the cycle clutch sleeve will have .010"-.015" (0.25-0.38 mm) end play.

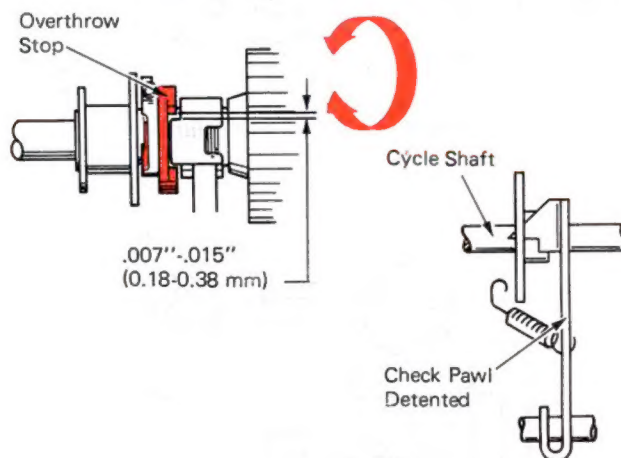


- Position the cycle clutch collar and spring rotationally so the cycle clutch spring will begin to slip when the print shaft is 1/2-1 tooth from its rest position when a zero tilt, negative 6 character is hand cycled.



- Position the overthrow stop so it will allow the cycle shaft to overthrow its latched position by .007"-.015" (0.18-0.38 mm).

NOTE: This adjustment must be made with the cycle clutch released; then checked with the machine at rest, to prevent loss of the cycle clutch spring rotational adjustment.



CYCLE BAIL DAMPER SPRING

The design of the keyboard has been changed. This allows the addition of 4 keylevers. The front and rear keylever guides, front and rear interposer guides, compensator tube, keylever springs, and interposer latch springs have additional positions.

The cycle bail damper springs have been replaced by a flat spring that is mounted to the cycle clutch latch keeper bracket. It has the same effect, of limiting the downward movement of the cycle bail, as the earlier dampers. This dampening action keeps the cycle bail from bouncing on the top of the cycle clutch latch pawl, causing extra cycles (Figure 1).

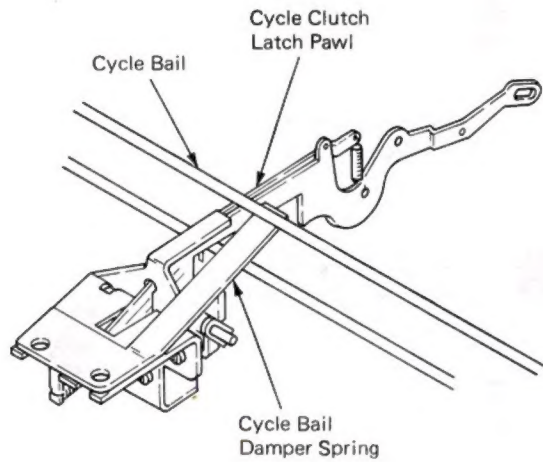
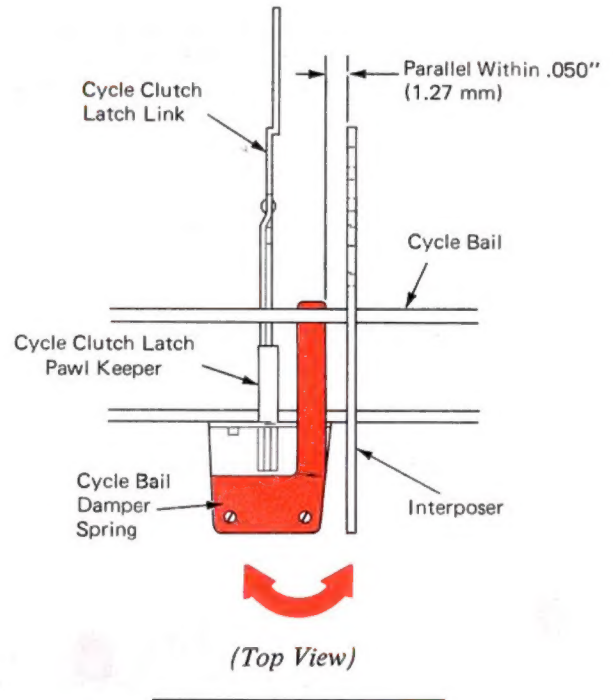


Figure 1 – Cycle Bail Damper Spring

1. *Cycle Bail Damper Spring* – Adjust parallel to interposers within .050" (1.27 mm).



KEYBOARD ARRANGEMENTS

The “Selectric” III Typewriter has 92-, 94- and 96-character keyboard arrangements. This makes it necessary to change the size, shape and, in some cases, location of keybuttons.

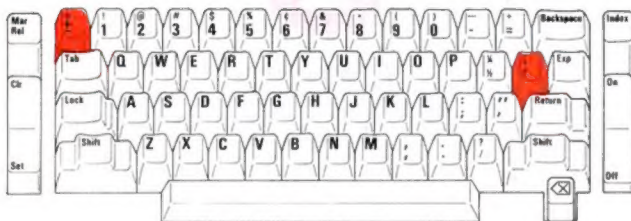
Figure 1 compares the keyboard keybutton arrangements of the “Selectric” II Typewriter (88 character) to the “Selectric” III Typewriter (92-, 94-, and 96-character).



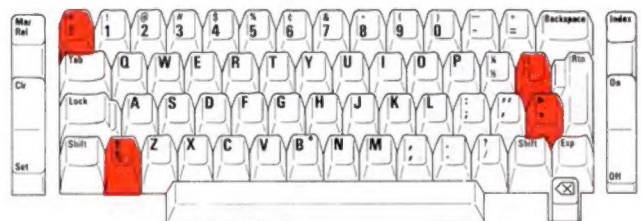
“Selectric” II 88 Character



*Additional Keyboard Keybuttons
“Selectric” III 94 Character*



*Additional Keyboard Keybuttons
“Selectric” III 92 Character*



*Additional Keyboard Keybuttons
“Selectric” III 96 Character*

Figure 1 – Keyboard Arrangements

ROCKER

The rocker assembly used in the "Selectric" III is the same as the rocker used in the "Selectric" II Typewriter with the following exception:

Lower Ball Socket — A flat surface has been added to the bottom of the lower ball socket and rotate pulley wedge to prevent the typehead from slipping (Figure 1). Therefore, the procedure for making the homing adjustment on the "Selectric" III Typewriter will be new. (See Character Selection section of this manual.)

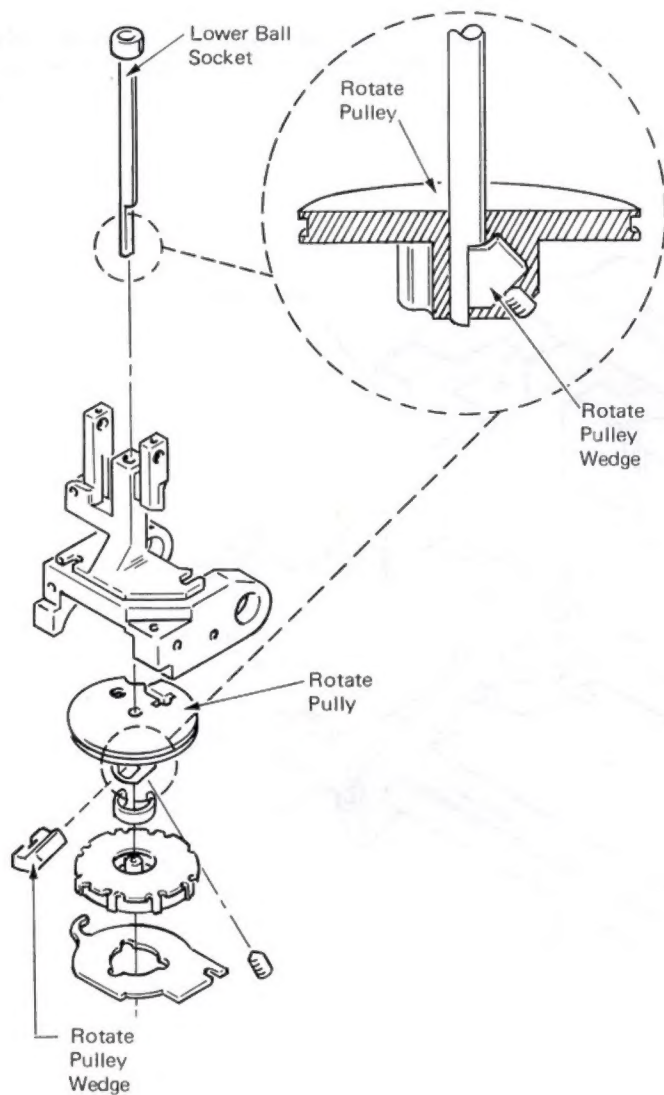


Figure 1 - Rocker Assembly

TYPEHEAD SUPPORT

Mounted on the tilt ring is the upper ball socket (Figure 2). Shims between the tilt ring spacer and the tilt ring provide a clearance in which the flange of the upper ball socket rotates. The typehead is attached to the upper ball socket by a spring clip within the typehead. The clip engages the sides of the typehead locking screw. A lever on the top of the typehead opens and closes the clip. Three lugs on the typehead key locate the typehead on the upper ball socket. The key is locked to the upper ball socket by the typehead locking screw.

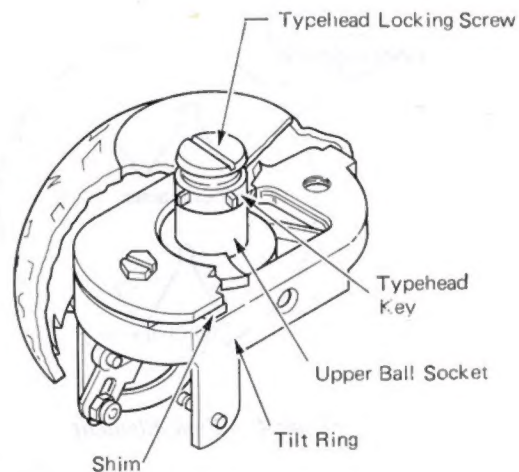


Figure 2 - Typehead Support

TILT RING

The "Selectric" III Typewriter's tilt ring can be identified by an additional notch just to the rear of the tilt teeth (Figure 3).

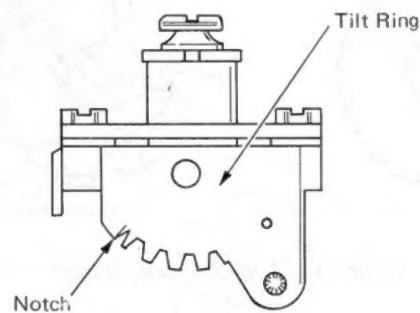


Figure 3 - Tilt Ring

TYPE ELEMENT

The 96-character (“Selectric” III Typewriter) type element is the same size as an 88-character (“Selectric” II Typewriter) element. The 96-character type element has 2 additional rotate rows of 4 characters each on the type element. Therefore, the rotate teeth are closer together (Figure 4).

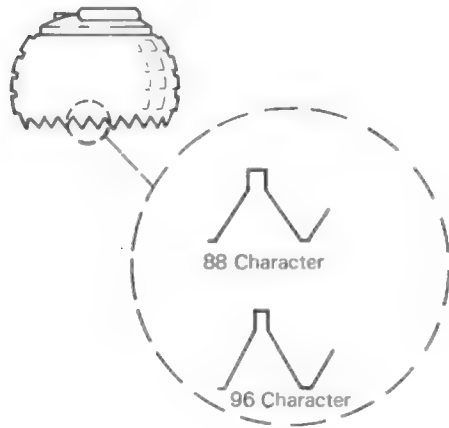


Figure 4 – Type Element

The grooves in the type element socket are different. This prevents the customer from putting the wrong type element on a machine (Figure 5).

The tops of “Selectric” III Typewriter type elements have gold letters to identify them.

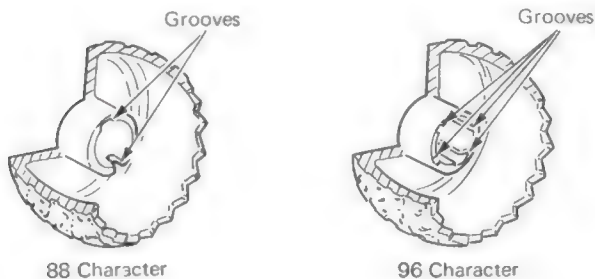


Figure 5 – Type Element Socket

FINE ALIGNMENT ADJUSTMENTS

See “Selectric” Typewriter Service Manual (F/N 241-5615) or “Selectric” Typewriter Adjustment Parts Manual (F/N 241-5939).

TILT MECHANISM

Theory of operation and adjustments for the "Selectric" III tilt mechanism remain the same as for the "Selectric" II Typewriter.

ROTATE MECHANISM

All the rotate selection from the home position to the positive five position is the same as on the "Selectric" Typewriter. The negative selection has been changed to add one more negative position. This is done by reducing the diameter of the negative cam at its low surface (Figure 1). This reduced diameter allows the negative bail to move up more in the negative direction.

The "Selectric" III cycle shaft can be identified by the number 96 stamped on the negative cam.

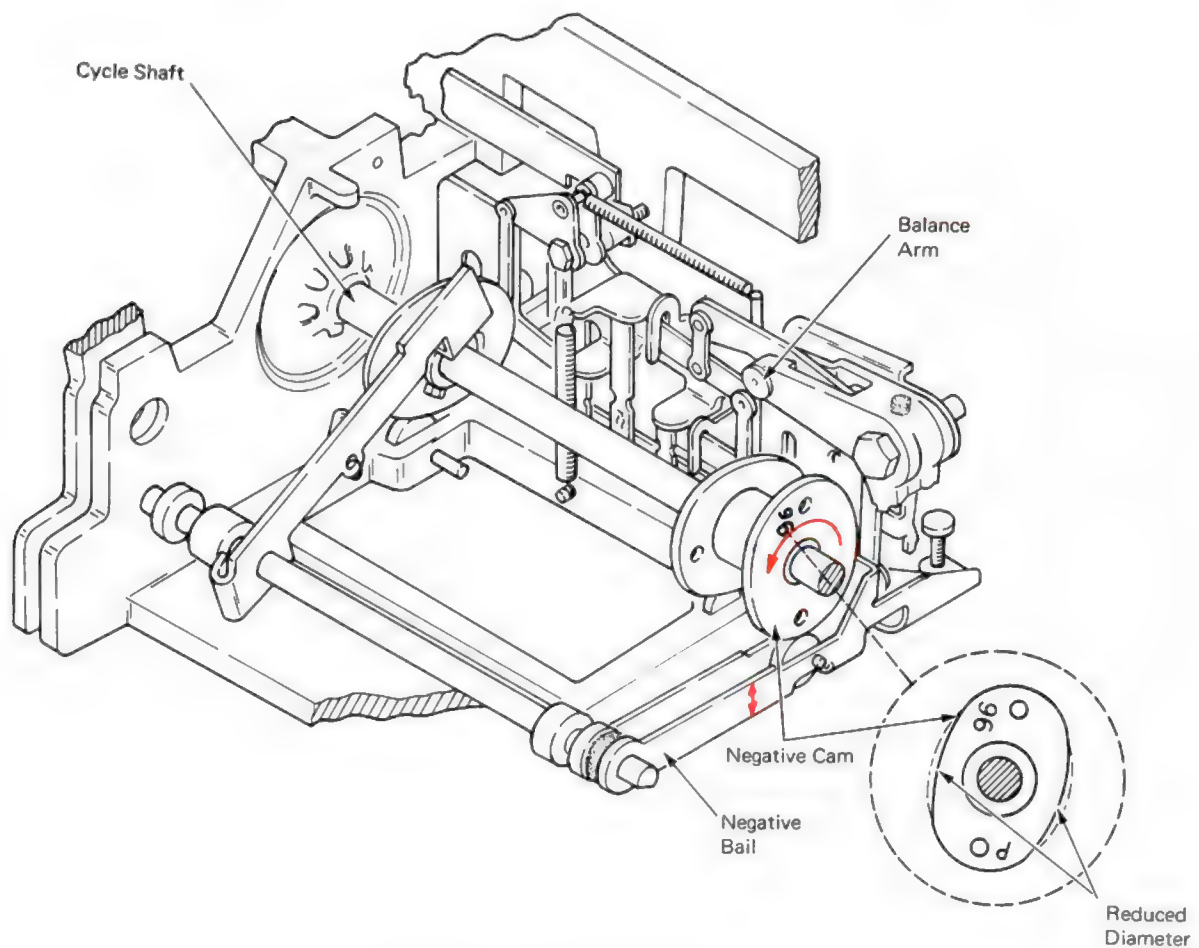


Figure 1 – Negative Selection Cam

The rotate latch combinations needed to select characters in the 96-character machine are different from the 88-character machine. The following chart shows the latch combinations needed to select each character on standard U.S. 96-character type elements (Figure 2).

| STANDARD U.S. 96 TYPE ELEMENTS | | | | | | | | | | | | | | |
|--------------------------------|--------|--------|--------|------------|-------------|-----------------|---------|-----|-----|---------|----------|------------------------|---------------------|--|
| Tilt Latches Used | Rotate | | | | | | | | | | | Type Element Positions | | |
| | R-6 | R-5 | R-4 | R-3 | R-2 | R-1 | H O M E | R+1 | R+2 | R+3 | R+4 | R+5 | | |
| T-0 | / | / | / | / | / | / | / | / | / | / | / | / | Tilt T-0 | |
| T-1 | / | / | / | / | / | / | / | / | / | / | / | / | T-1 | |
| T-2 | / | / | / | / | / | / | / | / | / | / | / | / | T-2 | |
| T-1, T-2 | / | / | / | / | / | / | / | / | / | / | / | / | T-3 | |
| | -6 | -6 R-1 | -6 R-2 | -6 R-1 R-2 | -6 R-2 R-2A | -6 R-1 R-2 R-2A | H O M E | R-1 | R-2 | R-1 R-2 | R-2 R-2A | R-1 R-2 R-2A | Rotate Latches Used | |

Figure 2 – Typehead Character Layout Chart

A blank chart is included so that you can enter the characters from a different type element (Figure 3).

| FILL IN FOR OTHER TYPE ELEMENTS | | | | | | | | | | | | | | |
|---------------------------------|--------|--------|--------|------------|-------------|-----------------|---------|-----|-----|---------|----------|------------------------|---------------------|--|
| Tilt Latches Used | Rotate | | | | | | | | | | | Type Element Positions | | |
| | R-6 | R-5 | R-4 | R-3 | R-2 | R-1 | H O M E | R+1 | R+2 | R+3 | R+4 | R+5 | | |
| T-0 | / | / | / | / | / | / | / | / | / | / | / | / | Tilt T-0 | |
| T-1 | / | / | / | / | / | / | / | / | / | / | / | / | T-1 | |
| T-2 | / | / | / | / | / | / | / | / | / | / | / | / | T-2 | |
| T-1, T-2 | / | / | / | / | / | / | / | / | / | / | / | / | T-3 | |
| | -6 | -6 R-1 | -6 R-2 | -6 R-1 R-2 | -6 R-2 R-2A | -6 R-1 R-2 R-2A | H O M E | R-1 | R-2 | R-1 R-2 | R-2 R-2A | R-1 R-2 R-2A | Rotate Latches Used | |

Figure 3 – Blank Typehead Character Layout Chart

ROTATE ARM

The rotate arm moves one position further to get to the negative six position. To prevent the rotate arm from interfering with other parts during negative six operation, the rest position is not vertical (Figure 4).

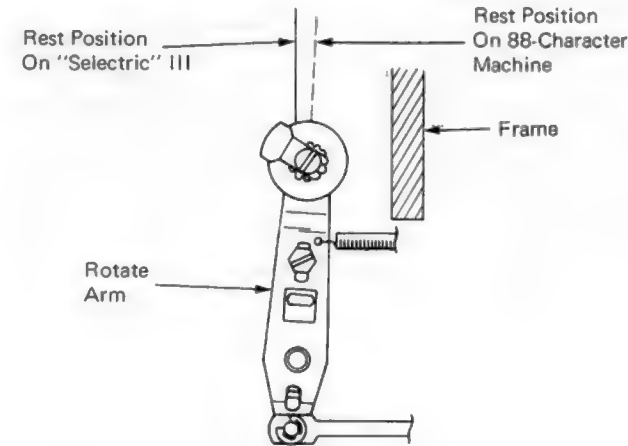


Figure 4 – Rotate Arm

NEGATIVE BAIL UPSTOP

An adjustable negative bail upstop limits the upward motion of the negative bail. This is necessary to control the position of the negative bail during selection of a negative character (Figure 5).

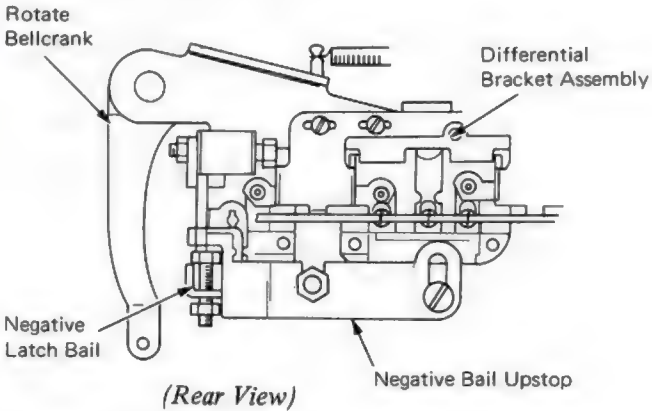


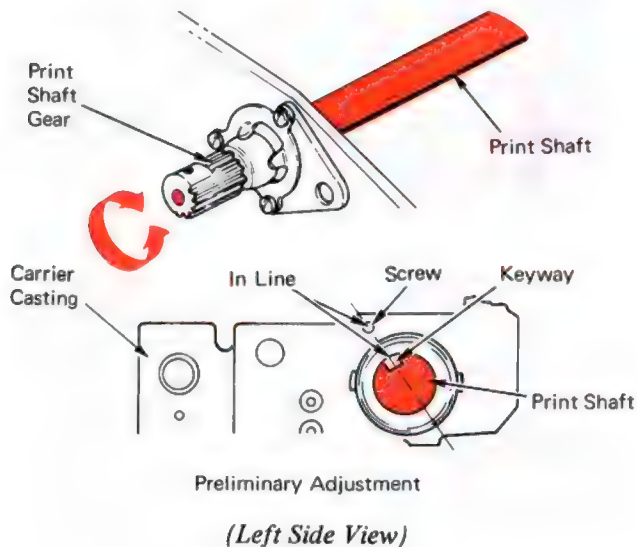
Figure 5 – Negative Bail Upstop

CHARACTER SELECTION ADJUSTMENTS

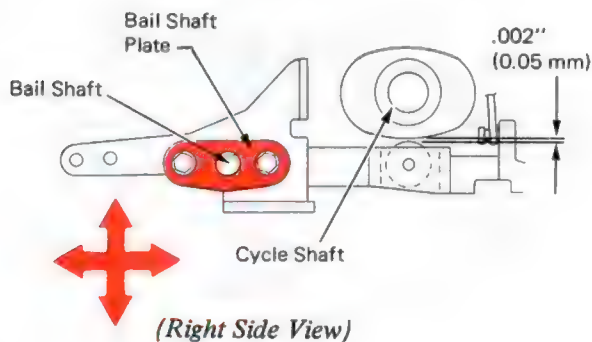
The following is a complete sequence.

NOTE: Shift adjustments must be correct before making the coarse alignment adjustments. Remove the typehead before beginning adjustments.

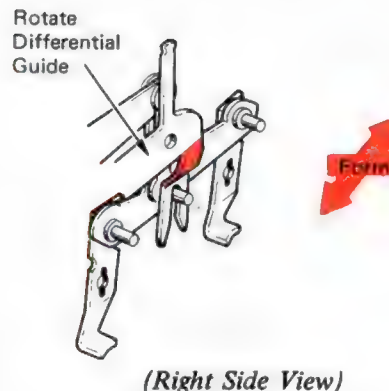
1. **Preliminary Timing** – Loosen the print shaft gear and rotate the print shaft so that its keyway is in line with the screw on the left side of the carrier casting. This coarse adjustment makes sure the detents will operate at approximately the right time in the cycle.



2. **Latch Bail Shaft** – Adjust the bail shaft plate so that the bail shaft is parallel to the cycle shaft. Rollers should not clear the cycle shaft by more than .002" (0.05 mm).

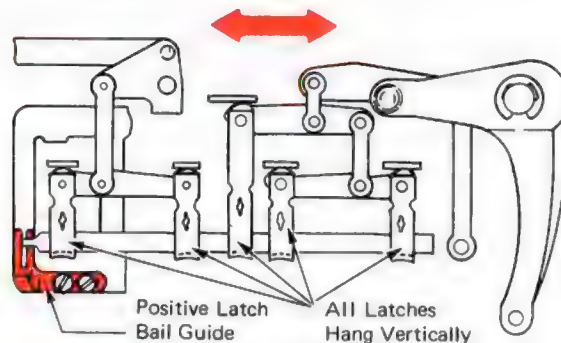


3. **Rotate Differential Guide** – Adjust the guide left or right so that the differential link is vertical.

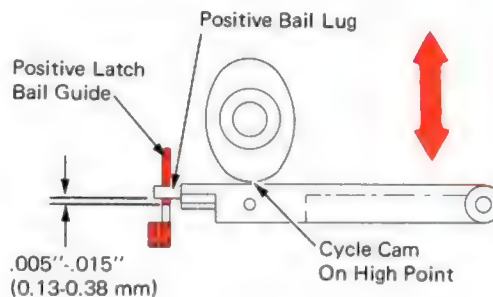


4. **Positive Latch Bail Guide** – Adjust the guide for the following conditions:

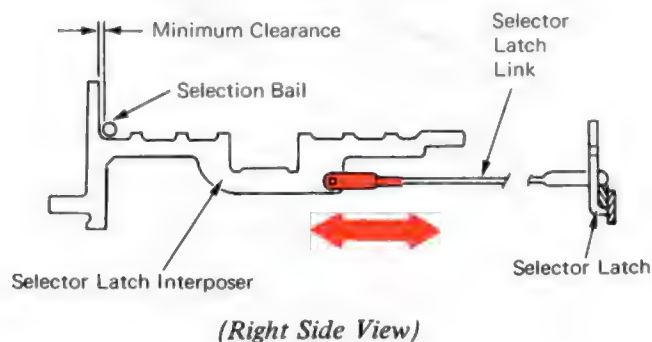
- a. Left and right so that the tilt and rotate latches are vertical



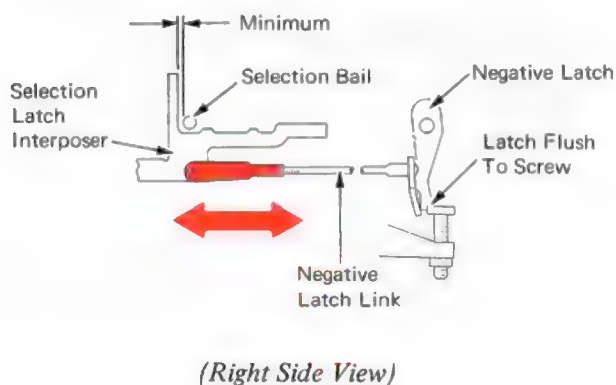
- b. Up and down (with the cycle shaft cams on the high point), so the positive bail lug will have .005"-.015" (0.13-0.38 mm) clearance from the bottom of the guide.



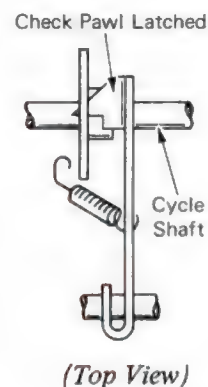
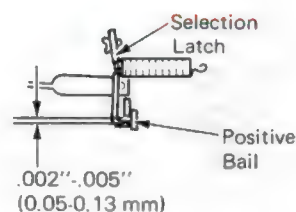
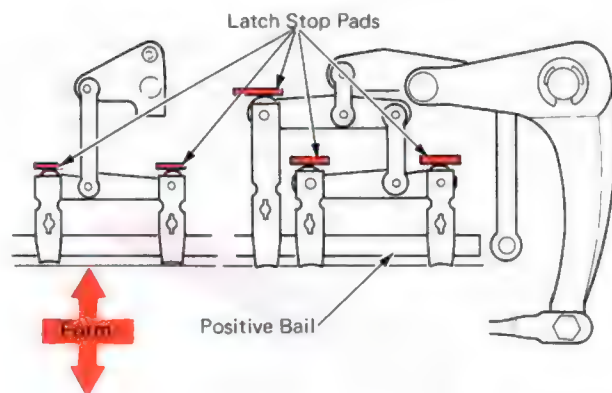
5. **Selector Latch Links** – Adjust the selector latch links to get minimum clearance between the selector latch interposer and the selector bail. This can be done with the machine at rest by adjusting the selector latch links so that the links just reach between the selector latches and the selector latch interposers. Then make the link longer by 1/2 turn.



6. **Negative Latch Link** – Adjust the negative latch link to get minimum clearance between the selection latch interposer and the selection bail. This can be done with the machine at rest by adjusting the latch link so the link just reaches the negative latch and the interposer. Then make the link longer by 1/2 turn.

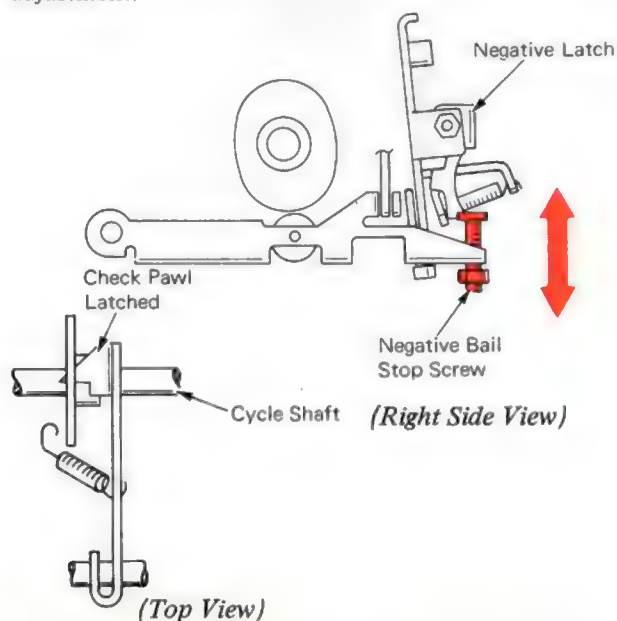


7. **Latch Stop Pads** – Form the latch stop pads to get .002"-.005" (0.05-0.13 mm) clearance between the latches and the positive bail with the cycle clutch check pawl latched. The latches should all reset under the bail at the same time.



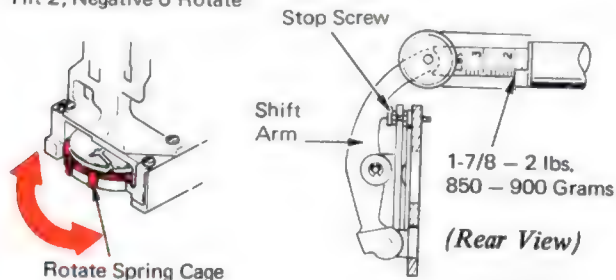
8. **Negative Bail Stop Screw (Preliminary)** – With the machine in the rest position and the cycle clutch check pawl latched in the window, preset the negative bail stop screw by turning it in until it contacts the negative latch. Then back it out 1/2 turn.

NOTE: Check negative latch link after making this adjustment.



9. **Rotate Spring Tension** — Shift the machine into lower case and half cycle a tilt 2, negative 6 rotate character ("degree"). Adjust the rotate spring cage until a 1-7/8 to 2 pound (850-900 g) reading is on the spring scale just as the shift arm contacts the stop screw. This is a **CRITICAL** adjustment. Excessive tension will cause extra wear in the system; not enough tension will not provide the torque necessary for reliable lower case negative rotate operations.

Typehead Removed
Half Cycled
Lower Case
Tilt 2, Negative 6 Rotate

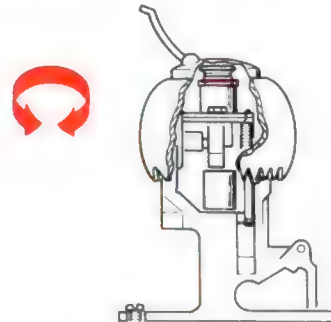


from a medium screwdriver and using the fingertips only is sufficient. The locking screw and the typehead key are designed to lock when tightened with a low torque.

NOTE: Total head play should not be more than .050" (1.27 mm).

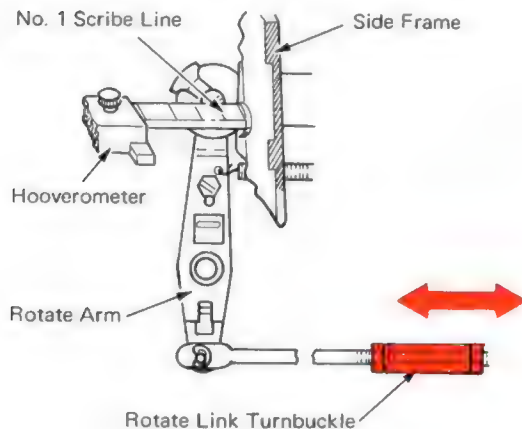
NOTE: The typehead key has a rough and a smooth surface. The rough surface should be installed facing **DOWN**.

It is not necessary to reposition the typehead if the detent enters the correct tooth.

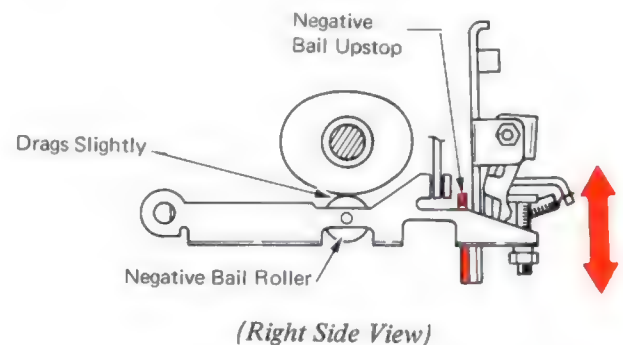


10. **Rotate Arm** — Adjust the rotate link turnbuckle so that the center top of the rotate arm is in line with the No. 1 line of the Hooverometer when a lower case tilt 2, negative 1 rotate character ("n") is half cycled. The Hooverometer must be against the side frame of the machine.

W.T. NOTE: This adjustment is not necessary.

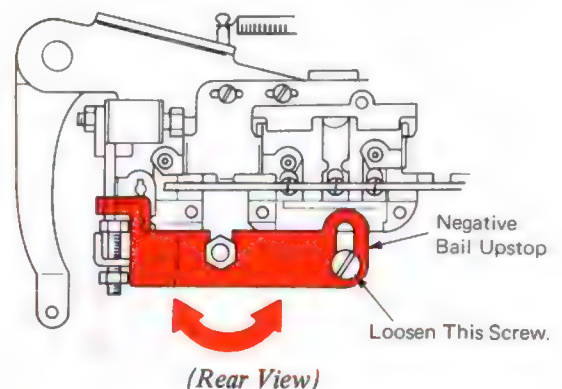


12. **Negative Bail Upstop** — Adjust the negative bail upstop up or down so the negative bail roller drags slightly on the negative cam with an upper case tilt 2, negative 1 rotate character ("N") half cycled. Check this adjustment on both sides of the negative cam.



11. **Typehead Homing (Preliminary)** — Install the typehead and half cycle an upper case tilt 2, zero rotate character ("R"). Loosen the locking screw and position the typehead so the rotate detent is centered in the zero rotate typehead tooth.

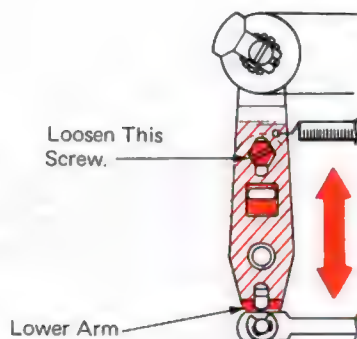
CAUTION: For adjustable upper ball socket—Do not overtighten the locking screw. The torque supplied



NOTE: Adjustments 13 through 16 must be made with the typehead biased in the counterclockwise direction. To do this, half cycle the character to be observed, raise the typehead release lever. While holding the rotate detent out of the typehead tooth, turn the typehead counterclockwise to remove the play between the upper ball socket and the typehead; then close the release lever. **DO THIS BEFORE OBSERVING EACH CHARACTER TO BE ADJUSTED.**

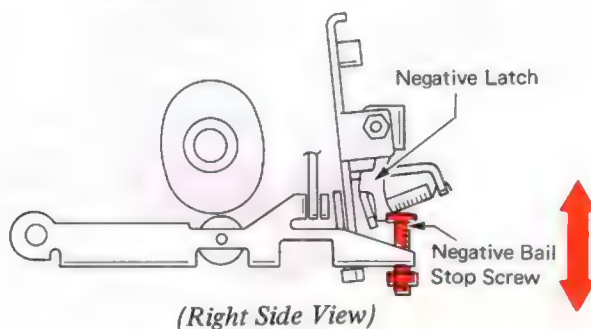
13. *Rotate Arm Motion* — Adjust the lower part of the rotate arm up or down to provide the proper motion in each direction of typehead rotation. The correct position is determined by comparing the detenting of the upper case tilt 2, zero rotate character ("R") and the upper case tilt 2, positive 5 rotate character ("V"). When the detenting is equal, the lower part of the arm is positioned correctly.

NOTE: If the rotate link or the lower part of the rotate arm is adjusted to the upper limit and there is not enough motion, make sure the selection latch stop pads are adjusted correctly.



14. *Balance (Negative Bail Stop Screw Final)* — Position the negative bail stop screw up or down so that the detenting of an upper case tilt 2, zero rotate character ("R") and an upper case tilt 2, negative six rotate character ("degree") is equal. This adjustment can be done by comparing the detenting of the above two characters.

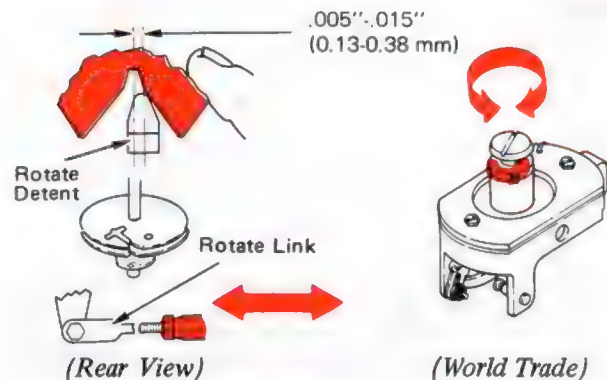
NOTE: Be sure to check the overlap of the latch on the head of the stop screw. Turning the screw may change the overlap; make the negative latch link adjustment again if necessary.



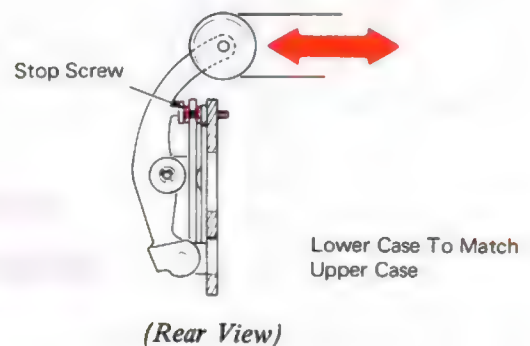
15. *Rotate Link (Typehead Homing — Final)* — Adjust the rotate link turnbuckle so the rotate detent contacts the negative side of the typehead .005"-.015" (0.13-0.38 mm) from the center of the notch when the home character is half cycled. Check for this condition by removing the rotate detent, turning the typehead clockwise, and observing the rotate detent entry.

After adjusting the rotate link and tightening the lock nuts, ensure that there are no binds at the rotate link pivot points. This may be checked by moving the link front to rear and observing some link motion on the pivot studs. This will ensure that the flat ends of the rotate link are parallel to the flat ends of the rotate arm and rotate bellcrank.

NOTE: This adjustment should be checked on every call.



16. *Shift Motion* — Adjust the stop screw so the detenting of a lower case tilt 2, zero rotate character ("r") matches EXACTLY the detenting of an upper case tilt 2, zero rotate character ("R").



17. **Final Timing** – Loosen the print shaft gear and rotate the print shaft so the detent lightly touches the tip of the typehead tooth as it is removed. Be sure to maintain .002"-.004" (0.05-0.10 mm) end play in the print shaft.

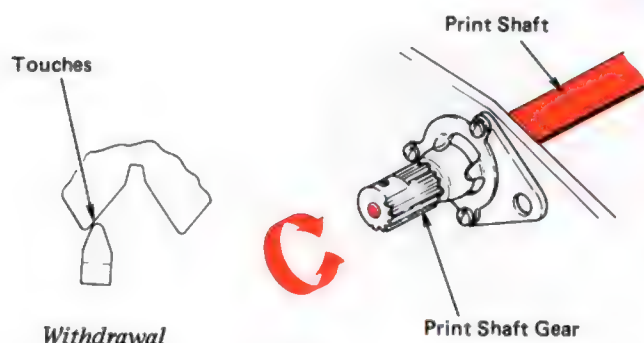
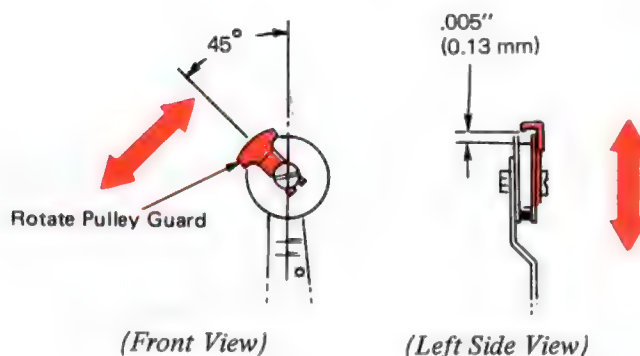
A way to get this condition is to loosen the print shaft gear and cycle an upper case tilt 2, negative 6 character ("degree") until check pawl latches at half cycle position. Manually rotate the print shaft; observe rotate detent entering and beginning to be removed. Stop rotation when the rotate detent is half removed from the tooth.

Continue to hand cycle the machine until the type element begins to rotate.

Tighten the print shaft gear. Be sure to maintain .002"-.004" (0.05-0.10 mm) print shaft end play.

CAUTION: Excessively advanced or late timing can cause parts damage as well as bad horizontal alignment or malselection. This could happen if the detent entered the wrong notch or remained in the notch too long.

18. **Rotate Pulley Guard** – Position the rotate pulley guard at 45° left of vertical. The guard must clear the rotate tape by .005" (0.13 mm) with the rotate arm in the negative 6 position ("degree").



NOTE: If previous fine timing adjustments have damaged the print shaft, remove the print shaft gear and rotate it one tooth in either direction to get to a good surface for the print shaft screws.

LIGHTED MARGIN

The lighted margin scales give a visual indication that the motor is on and which pitch has been selected (Figure 1).

Selection for the margin lamps on the margin scale is done by the following parts: transformer; lamp selection switch; switch pitch lever; switch pitch gear; and the selected margin lamp.

The cam surface on the switch pitch gear provides motion to transfer the lamp selection switch.

The lamp selection switch then applies 2.4 volts (AC) from the transformer to the 10 or 12 pitch lamp.

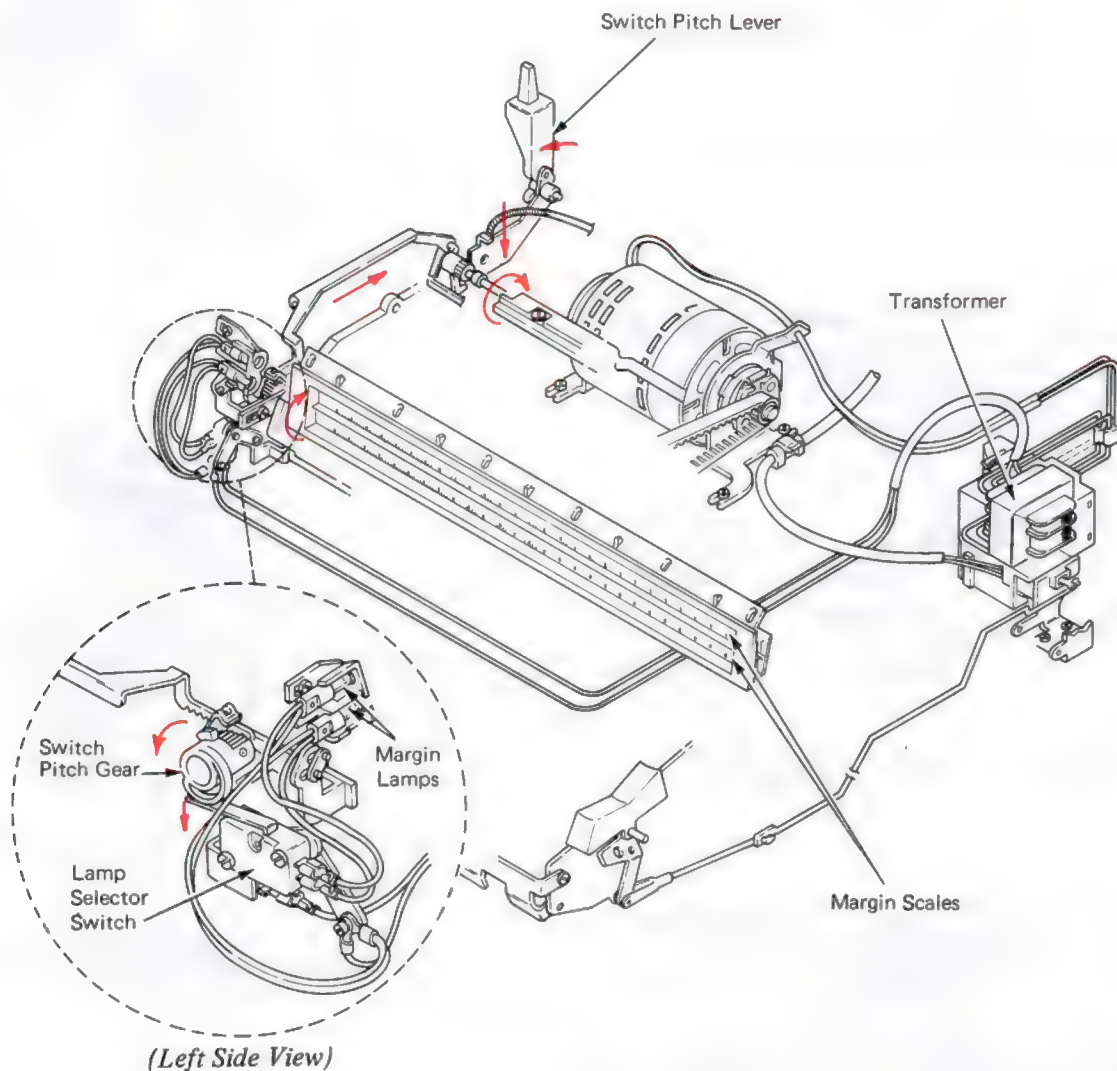


Figure 1 – Lighted Margins

LEFT MARGIN STOP ASSEMBLY

The left margin stop assembly has a pointer to give the operator a positive indication of the location of the margin set lever on the margin scale. The margin set lever pointer aligns with the carrier pointer and the margin scales (Figure 2).

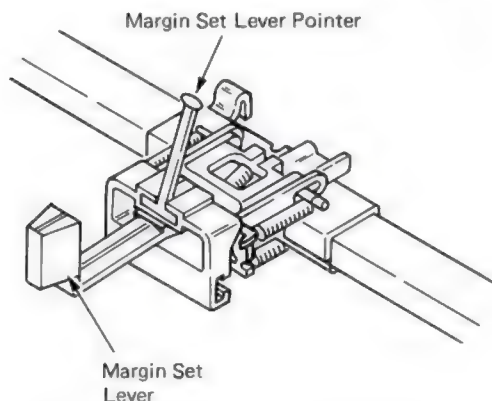


Figure 2 – Left Margin Stop Assembly

LAMP SELECTOR SWITCH

The lamp selector switch is a machine-operated micro switch (Figure 3). The three connecting points on the switch are the normally closed (N/C), the normally open (N/O) and the operating strap (O/P). The abbreviations are all you will normally see on a drawing and in text.

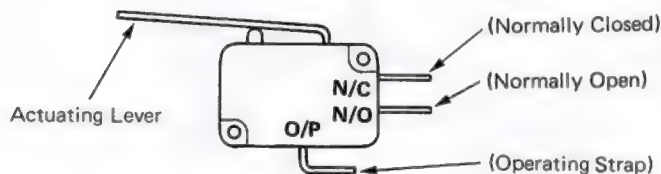


Figure 3 – Lamp Selector Switch

The O/P rests on the N/C contact when the machine is in the 10 pitch mode. In this mode, voltage is applied from the O/P through the N/C contact to the 10 pitch margin lamp.

The switch pitch gear is mounted on the margin rack and has a cam surface that supplies motion to operate the lamp selector switch. Voltage is applied through the switch's N/C contact when the machine is in 10 pitch, and through the N/O contact when the switch is operated while the machine is in 12 pitch.

When the machine is switched to the 12 pitch mode, voltage is applied from the O/P through the N/O contact to the 12 pitch margin lamp.

TRANSFORMER

The secondary transformer leads (Figure 4) supply 2.4 volts (AC) to the margin lamps. One lead is connected to the lamp selector switch O/P and the other is connected to the common lead of the margin lights at the anchor point.

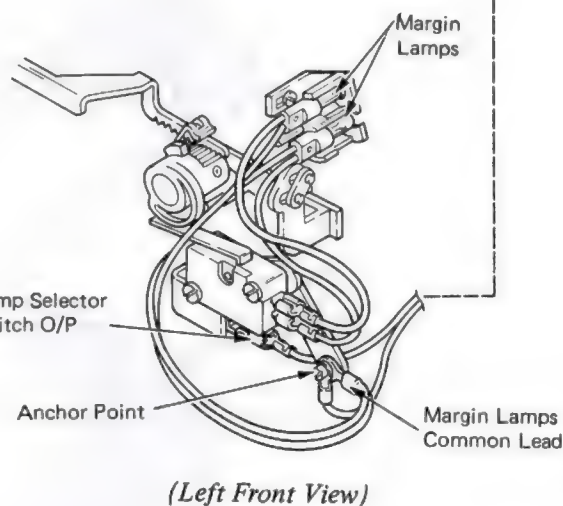
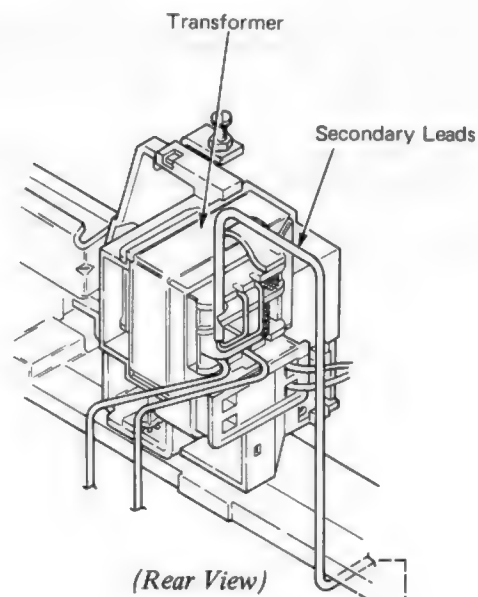


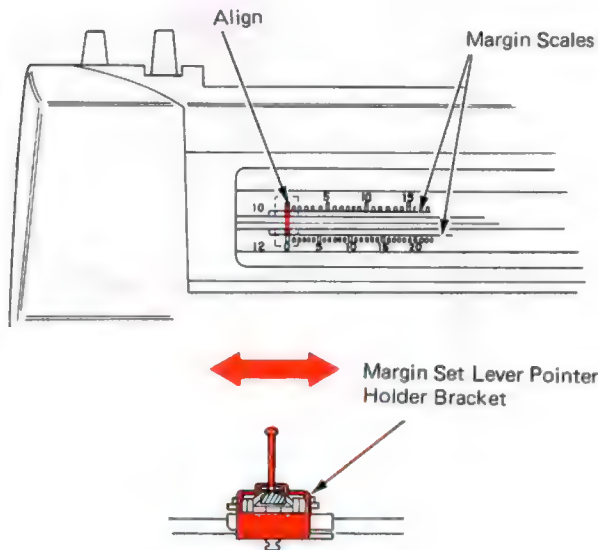
Figure 4 – Transformer Connections

SWITCH PITCH ADJUSTMENTS

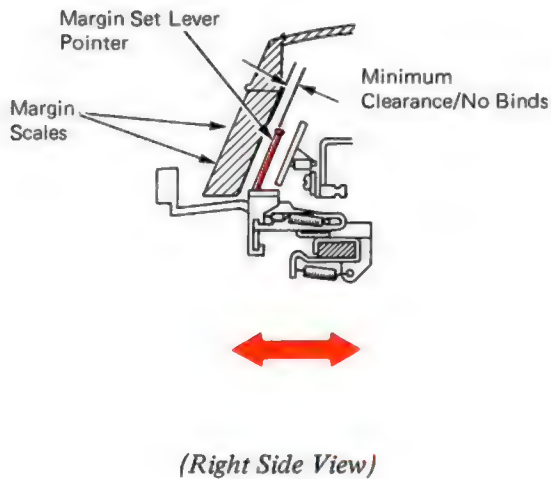
NOTE: The adjustments for covers, switch pitch and margins must be made before the following adjustments. Refer to "Selectric" Service Manual (F/N 241-5615) for correct adjustments.

1. Margin Set Lever Pointer –

- a. *Left To Right* – Slide the margin set lever pointer holder bracket left to right to align with the zero on the 10 and 12 pitch scales, with the margin set lever at the zero writing line position.

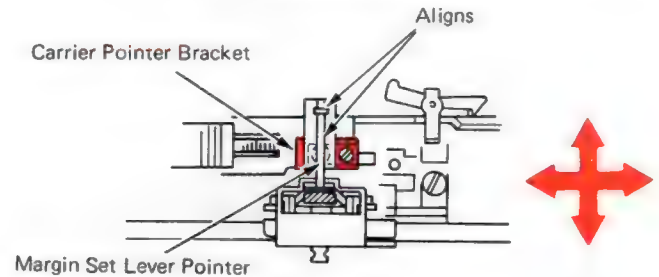


- b. *Front To Rear* – Adjust the margin set lever pointer front to rear for a minimum clearance, no binds with the margin scale.

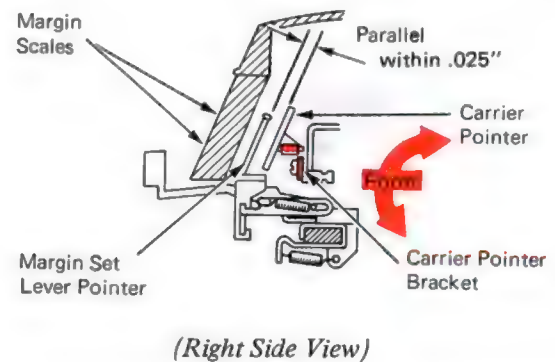


2. Carrier Pointer –

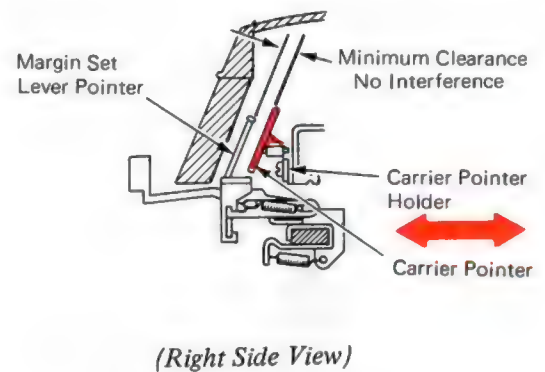
- a. *Left To Right* – Adjust the carrier pointer bracket to align the carrier pointer line with the margin set lever pointer. This should be done with the carrier at the zero writing line position.



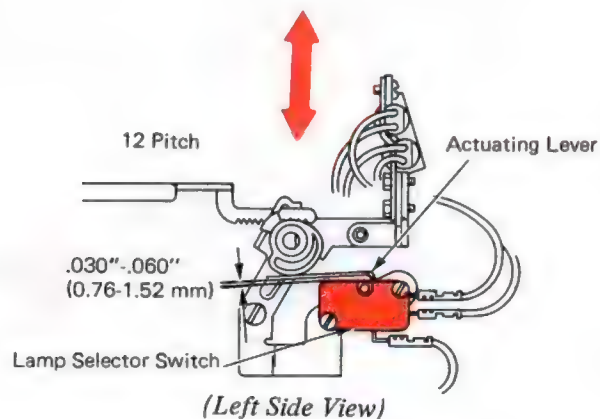
- b. *Parallel* – Form the carrier pointer bracket to hold the pointer parallel to the margin set lever pointer to within .025" (0.64 mm).



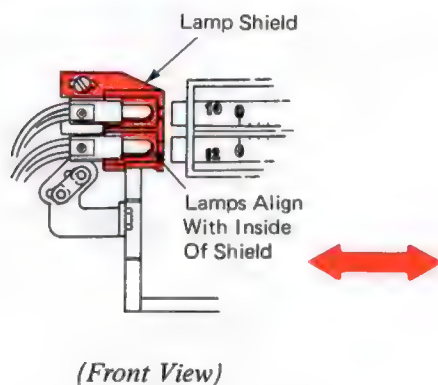
- c. *Front To Rear* – Position the carrier pointer front to rear in the holder to get a minimum clearance with no interference between the carrier pointer and the top of the margin set lever pointer.



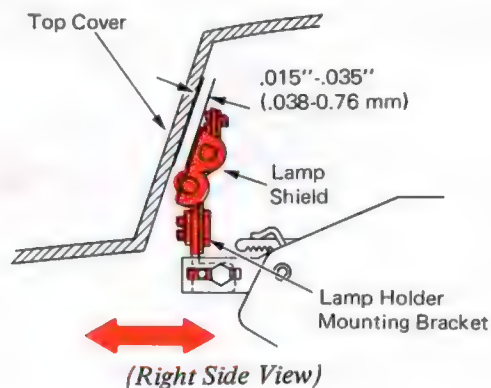
3. **Lamp Selector Switch** — Adjust the lamp selector switch up or down for .030"-.060" (0.76-1.52 mm) overthrow, after transferring as measured at the end of the actuating lever when the margin rack is in the 12 pitch position.



- f. **Lamp Shield** — Adjust the lamp shield left or right so that the right ends of the lamps align with the inside surface of the shield.

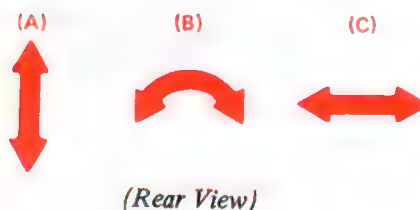
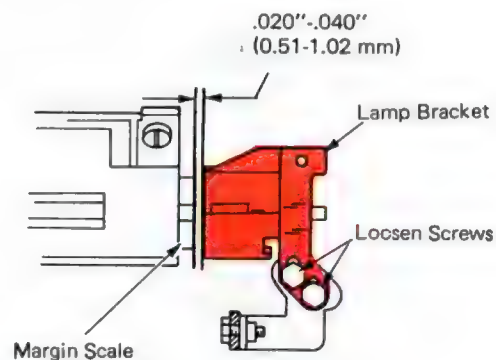


5. **Lamp Holder Mounting Bracket (Front To Rear)** — Adjust the mounting bracket front to rear for a clearance of .015"-.035" (0.38-0.76 mm) between the lamp shield and the top cover and so that the light enters the center of the margin scale.



6. **Lamp Bracket** — Adjust the lamp bracket:

- Up or down for maximum light at the right side of the scale
- In a rotational direction for even light across the scale
- Left to right for .020"-.040" (0.51-1.02 mm) clearance with the margin scale



EXPRESS BACKSPACE OPERATIONAL THEORY

The express backspace keylever is connected to the express backspace keylever pawl assembly by the express backspace keylever bellcrank. The express backspace keylever bellcrank is mounted on the front of the keylever support on the right side of the machine (Figure 1).

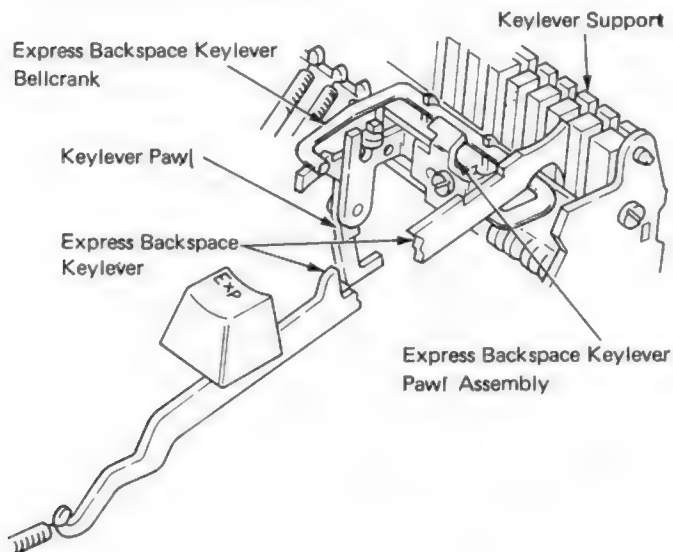
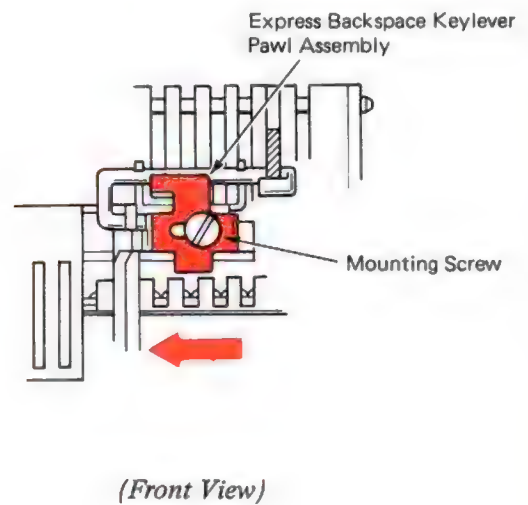


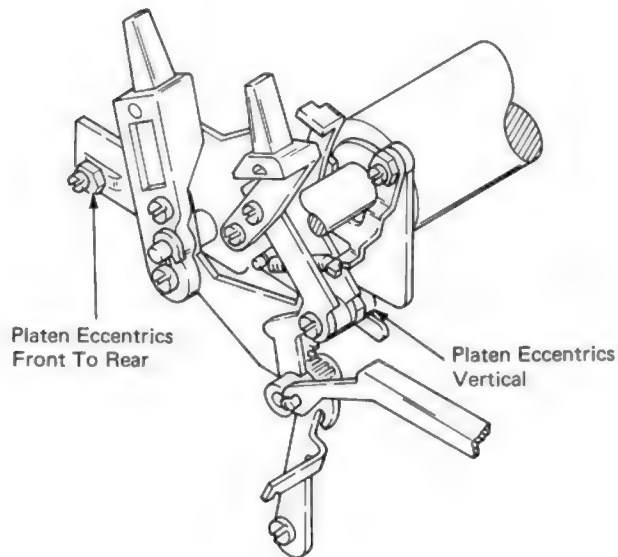
Figure 1 – Express Backspace Keylever Assembly

EXPRESS BACKSPACE ADJUSTMENTS

1. *Express Backspace Pawl* – Loosen the mounting screw and move the express backspace keylever pawl assembly to the far left and tighten the screw.



The "Selectric" III Typewriter has no copy control lever. Therefore, the platen adjusting eccentrics are mounted a little differently from the "Selectric" Typewriter. However, they perform the same function. The platen is positioned by the platen eccentrics. The platen eccentrics are also used to adjust the platen vertically and front to rear (Figure 1). All other print adjustments remain the same as "Selectric" II Typewriter.



(Left Side View)

Figure 1 – Platen Eccentrics

The cover assembly is made of three sections. They are the top cover, center cover, and bottom cover. The center cover assembly has the paper guide and the page-end indicator attached to it (Figure 1). An optional extension can be added to the standard page-end indicator for legal-size paper. The optional glare shield and acoustical filter hood are attached to the top cover.

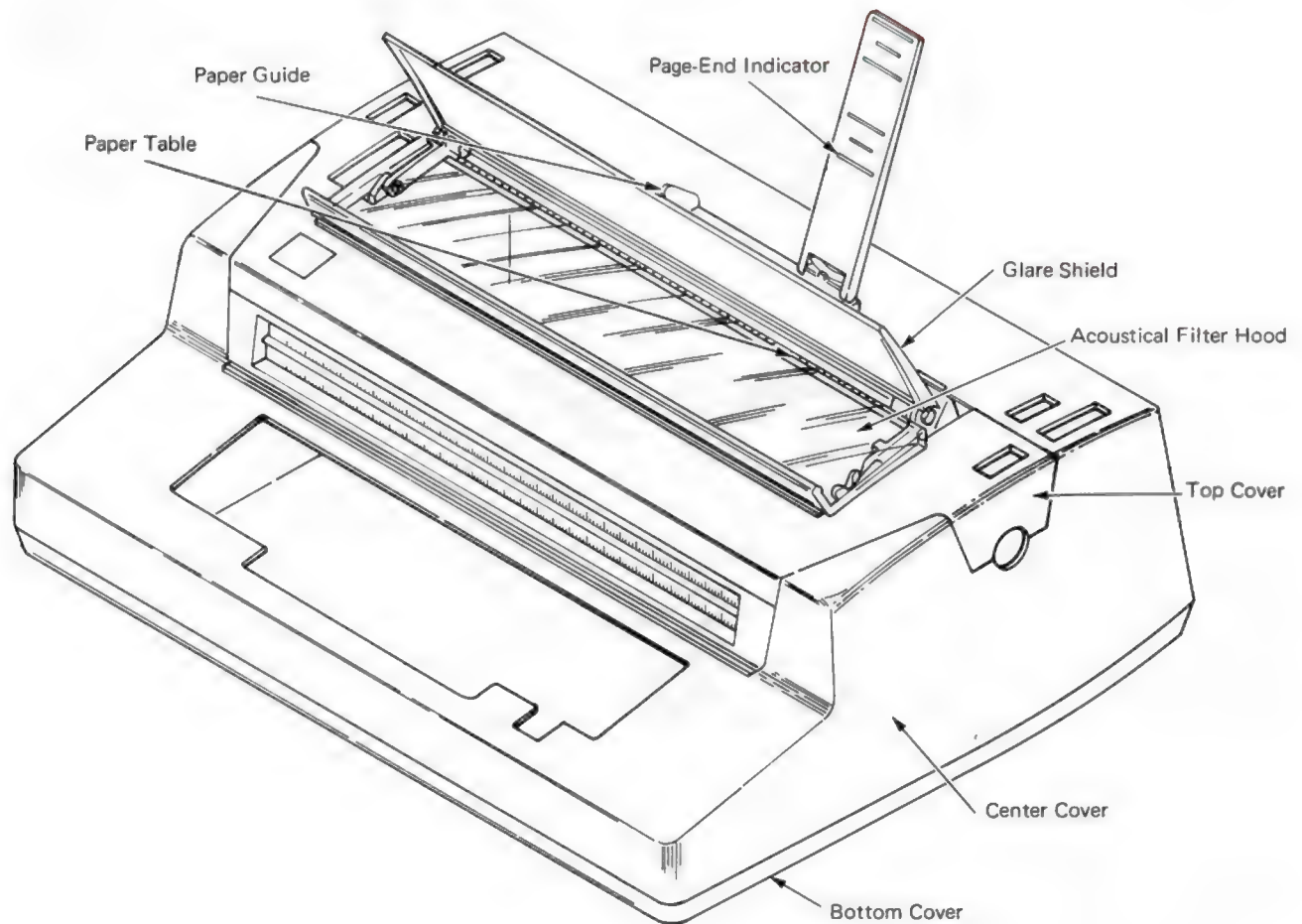


Figure 1 – Covers

PAPER TABLE MOUNTING BRACKETS

The paper table is connected to the center cover assembly by screws and brackets that are different from the "Selectric" II Typewriter. The paper table mounting brackets are open to go over extensions on the center cover and are setscrewed to these extensions (Figure 2).

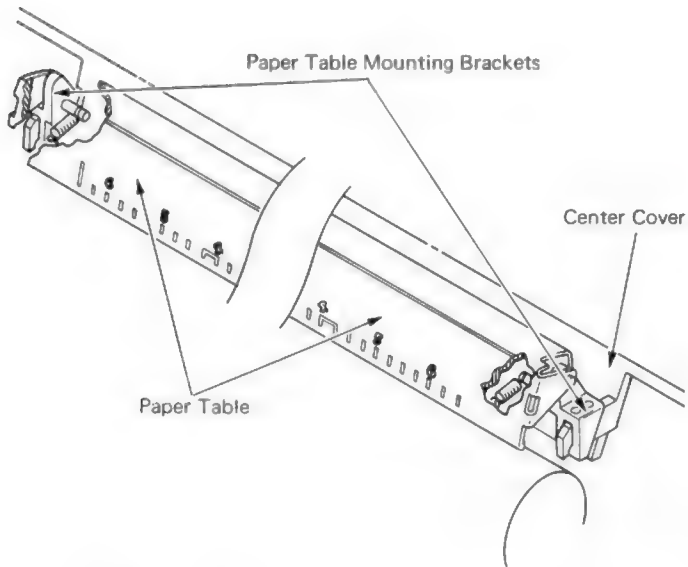


Figure 2 – Paper Table Mounting Brackets

TOP COVER HINGE

The top cover is attached to the center cover by hinges at the rear. The hinges have heavy springs on the dual pitch machines to prevent the top cover from coming down when it is in the raised position (Figure 3).

MARGIN SCALE

The margin scale(s) is mounted in the lower section of the top cover (Figure 3). The scale(s) is lighted on the dual pitch machine and is see-through on the single pitch machine.

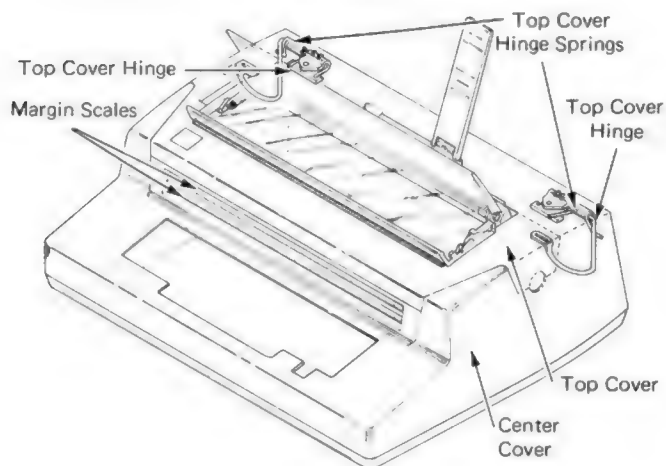
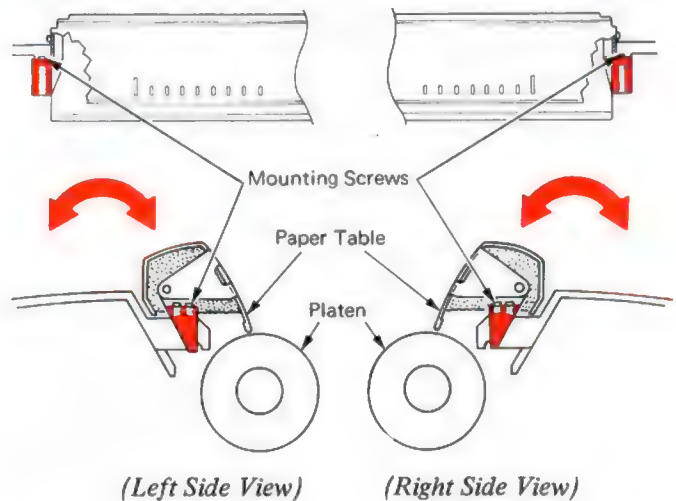


Figure 3 – Top Cover Hinges And Margin Scales

COVERS ADJUSTMENTS

1. *Paper Table* – Loosen the paper table mounting screws and move the paper table until it is flat over the whole length of the platen.



PIN FEED PLATEN OPERATIONAL THEORY

The page-end indicator, paper table, and paper guide must be removed from the machine before the pin feed platen can be used.

Two cam anchor rod mounting brackets replace the two paper table mounting brackets. The cam anchor rod mounting brackets mount the cam anchor rod (Figure 1).

Install the "Selectric" II paper guide for pin feed platen use.

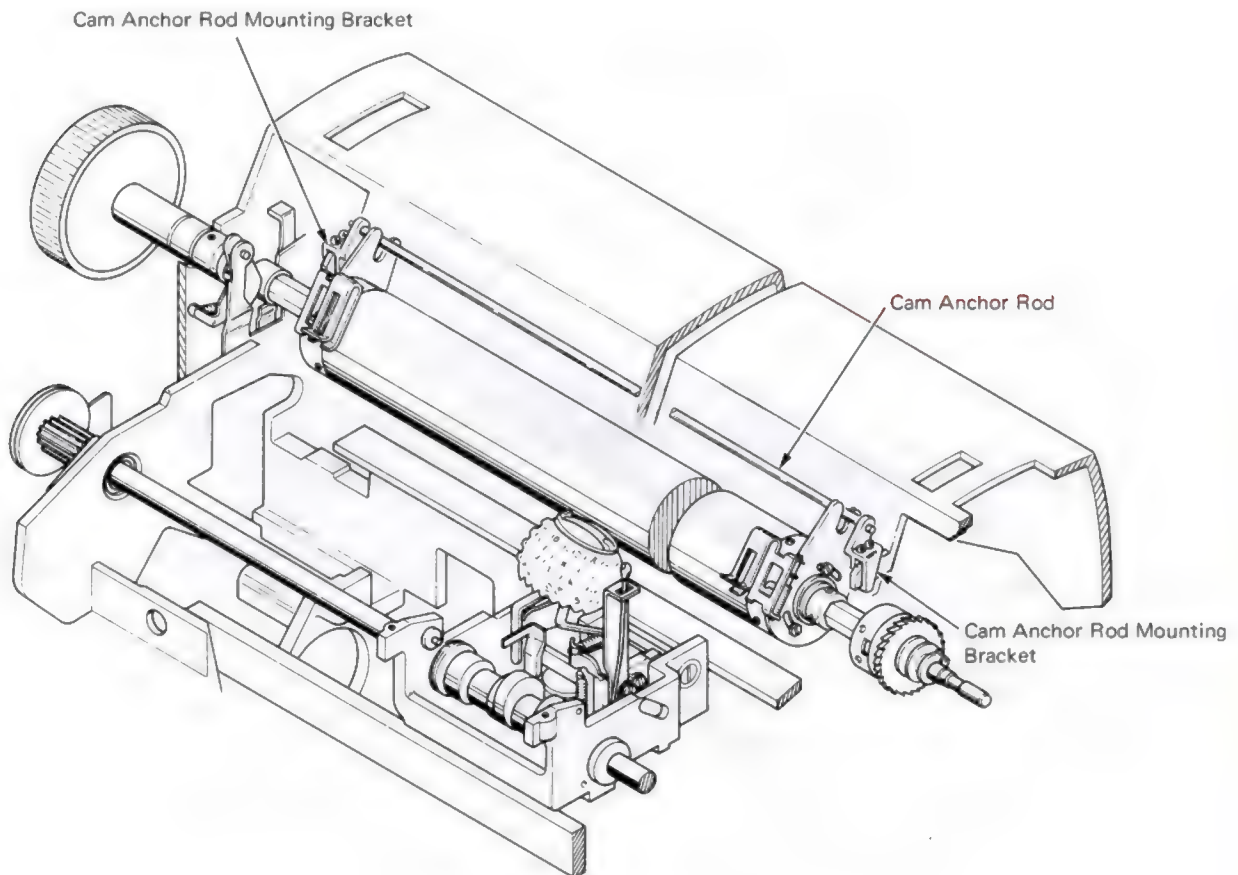


Figure 1 – Pin Feed Platen Assembly

ACOUSTICAL FILTER HOOD ASSEMBLY

The acoustical filter hood assembly is mounted on the center cover just above the platen and covers the opening between the top cover and the paper table. The hood and glare shield are mounted to the acoustical filter pivot shaft (Figure 1).

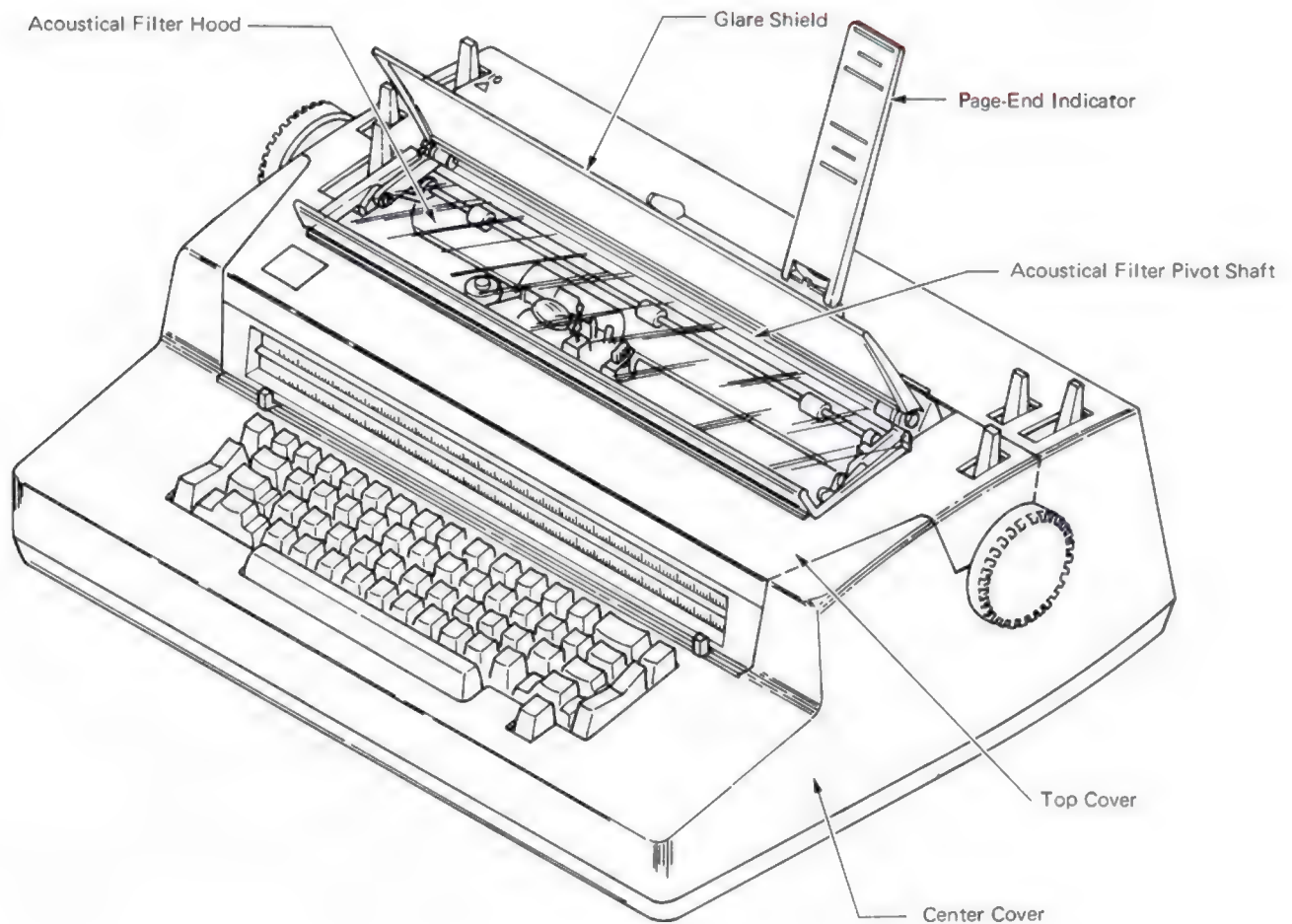


Figure 1 – Acoustical Filter Hood Assembly

The acoustical pivot shaft hinges connect the pivot shaft to the acoustical filter hood mounting brackets (Figure 2). "C" clips on the mounting bracket hold each hinge in place.

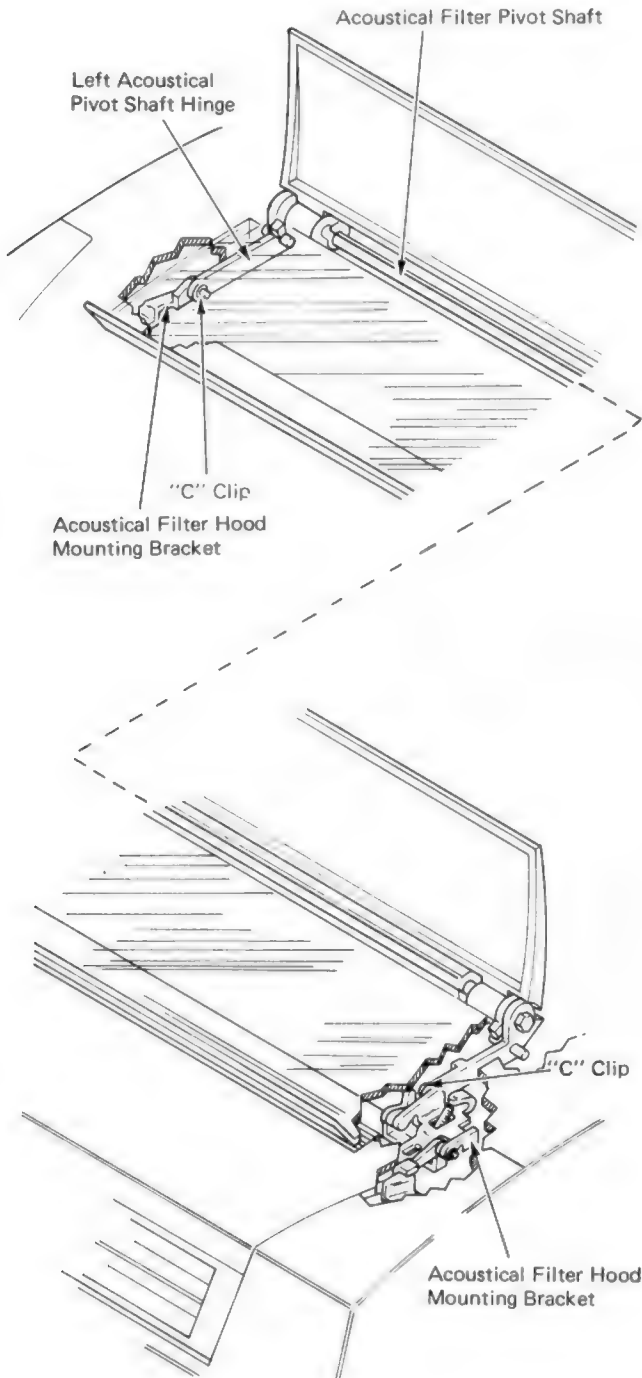


Figure 2 – Acoustical Pivot Shaft Hinge

The acoustical pivot shaft hinges have two stop lugs. The acoustical filter hood stop lugs determine the position of the hinge when the hood is closed. The glare shield stop lugs determine the position of the glare shield when the hood is closed. After each open/close operation, the glare shield returns to its original position (Figure 3).

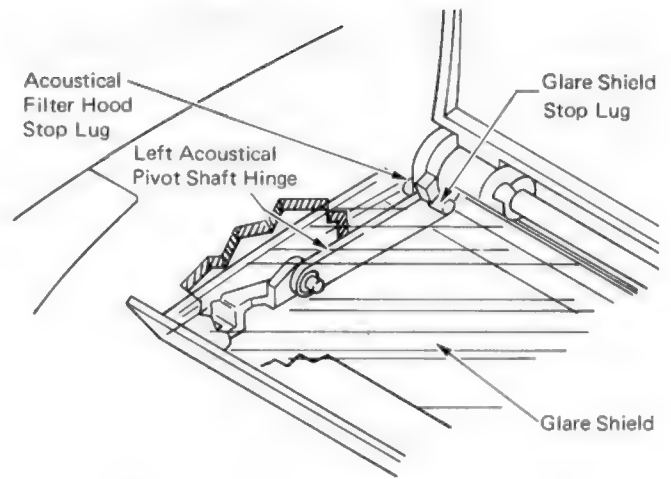


Figure 3 – Left Acoustical Pivot Shaft Hinge

The right acoustical pivot shaft hinge has an interlock lug on the left side of the hinge (Figure 4).

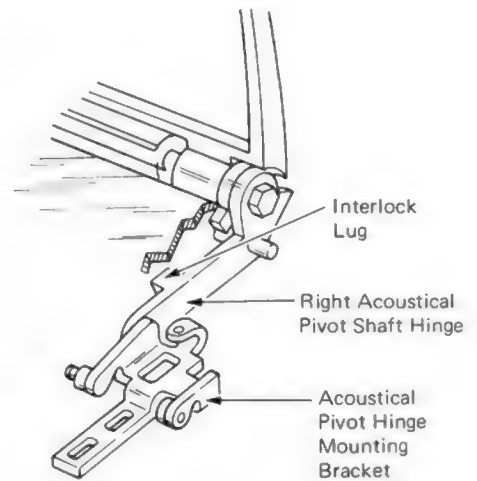


Figure 4 – Right Acoustical Pivot Shaft Hinge

The interlock lug goes into the interlock bracket and holds the acoustical filter hood assembly in place if the hood assembly is in the pulled forward position and the hood is opened (Figure 5).

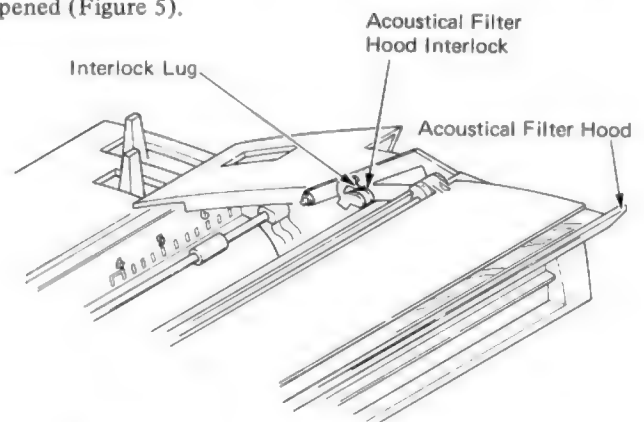


Figure 5 – Acoustical Filter Hood Interlock

The interlock is disengaged by a short extension mounted in the front right side of the center cover when the top cover is closed and engages when the top cover is opened (Figure 6).

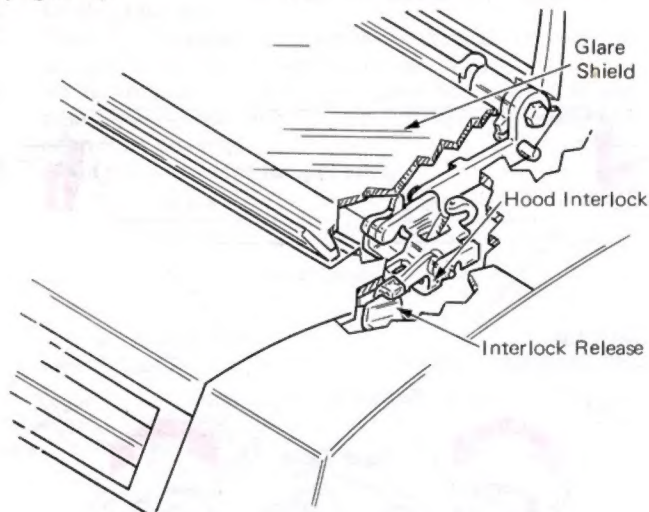


Figure 6 – Acoustical Filter Hood Interlock Release

SOUND REDUCTION SEAL

The acoustical filter hood seal is located across the front of the top cover between the top cover and the acoustical filter hood.

Two seals are used between the top cover and the center cover. The top cover seal is located below the margin scales. The center cover seal is also below the margin scales but attached to the center cover (Figure 7).

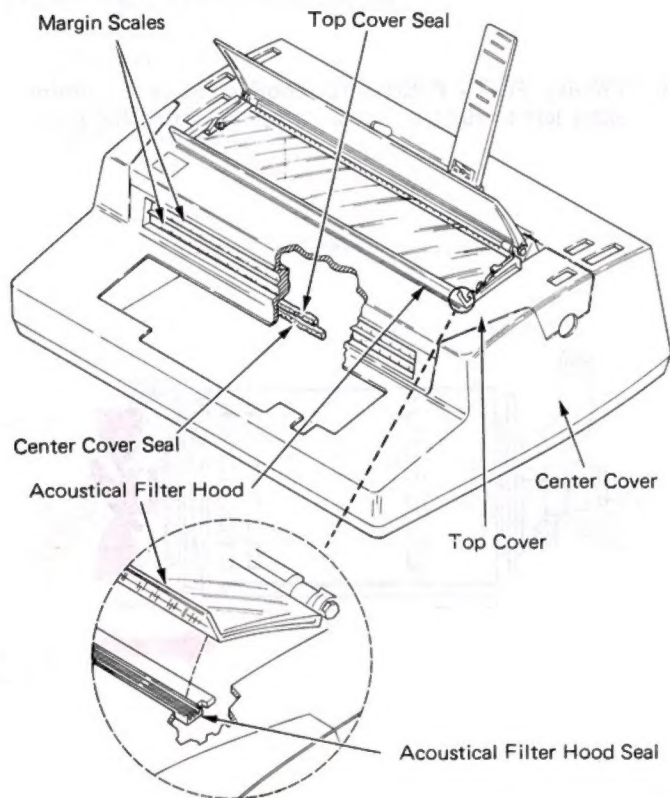


Figure 7 – Cover Seals

PAPER TABLE

The paper table for sound reduction fits over the platen, and covers the space between the acoustical filter hood and the center cover. The paper table is adjustable rotationally and reduces the sound with insulation as the sound leaves the machine (Figure 8).

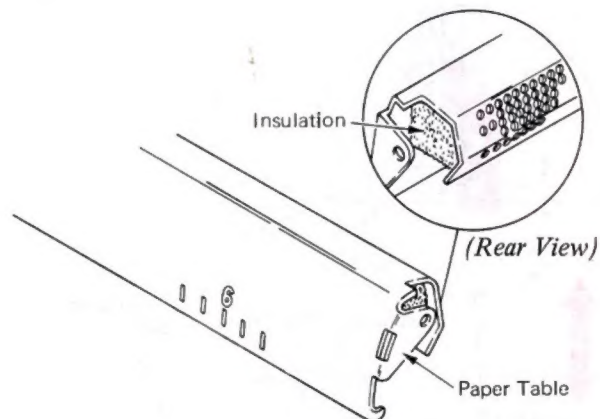


Figure 8 – Paper Table

BOTTOM COVER

Insulation on the sides and in the front of the bottom cover seal the bottom cover with the center cover when the covers are in place.

MOTOR FAN

A cooling fan has been added to machines with sound reduction to help maintain the correct operating temperature of the machine (Figure 9).

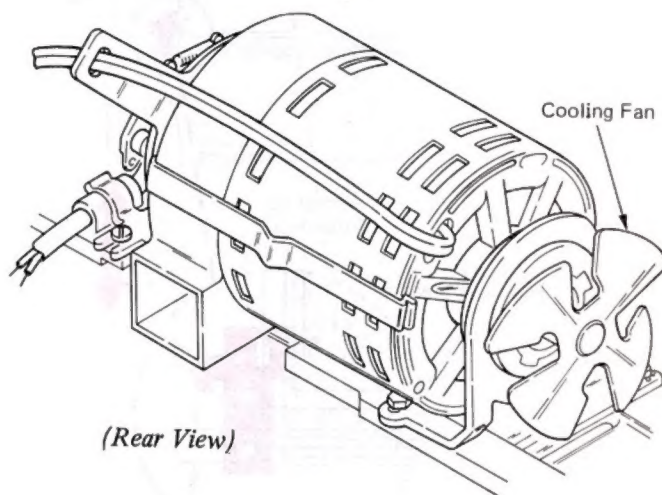
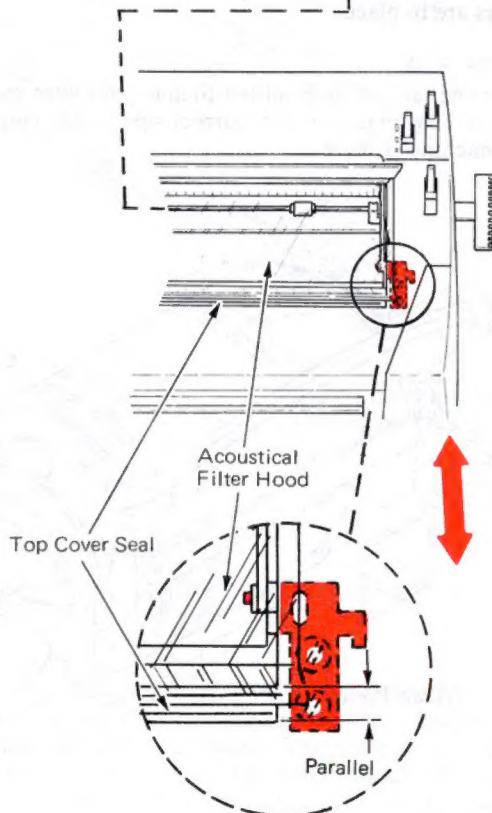
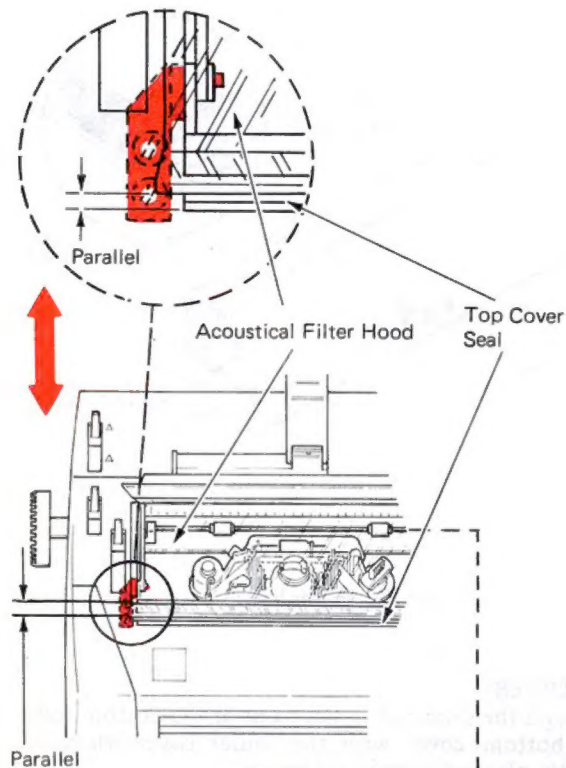


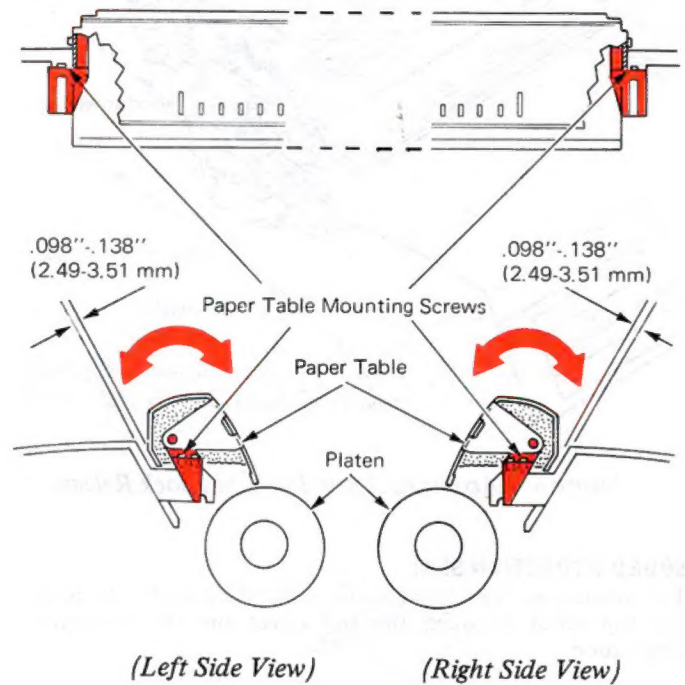
Figure 9 – Motor Fan

SOUND REDUCTION ADJUSTMENTS

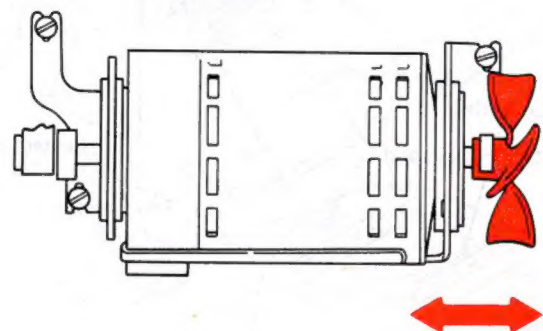
1. *Acoustical Filter Hood* — Adjust the acoustical hood mounting brackets front to rear until the hood assembly is parallel to the top cover seal.



2. *Paper Table* — Adjust the paper table rotationally for .098"-.138" (2.49-3.51 mm) clearance between the paper table and the center cover. The paper table must be flat and parallel to the platen.



3. *Cooling Fan* — Position the cooling fan on the motor shaft left to right to operate without hitting any parts.

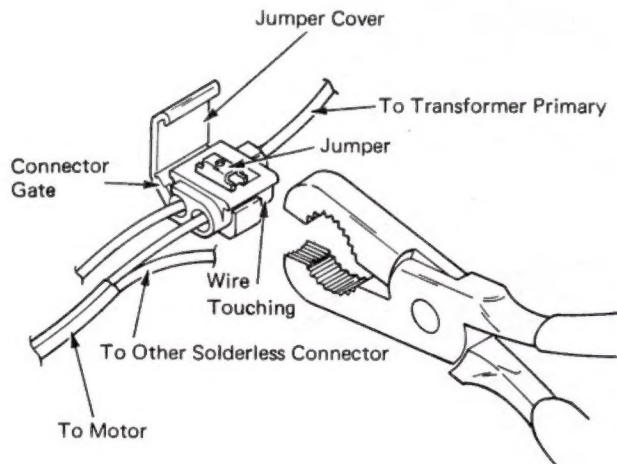


(Top View)

REMOVAL PROCEDURES

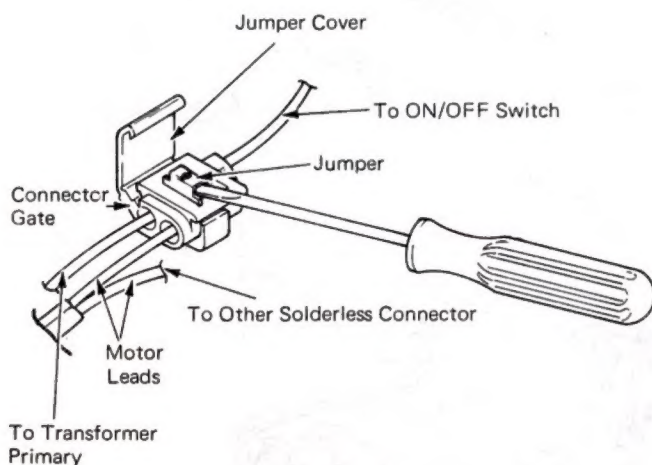
SOLDERLESS CONNECTOR INSTALLATION

1. Unplug linecord.
2. Place transformer lead (primary) through the side of the connector, and close the connector gate.
3. While holding a motor lead against the bottom of the connector, press the jumper completely into the connector housing.
4. Close the connector jumper cover.



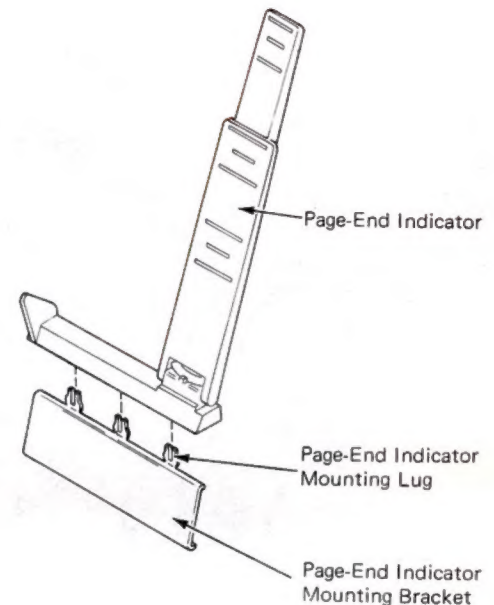
SOLDERLESS CONNECTOR REMOVAL

1. Unplug linecord.
2. Open jumper cover.
3. Lift the jumper out of the connector with a small screwdriver.
4. Open connector gate.



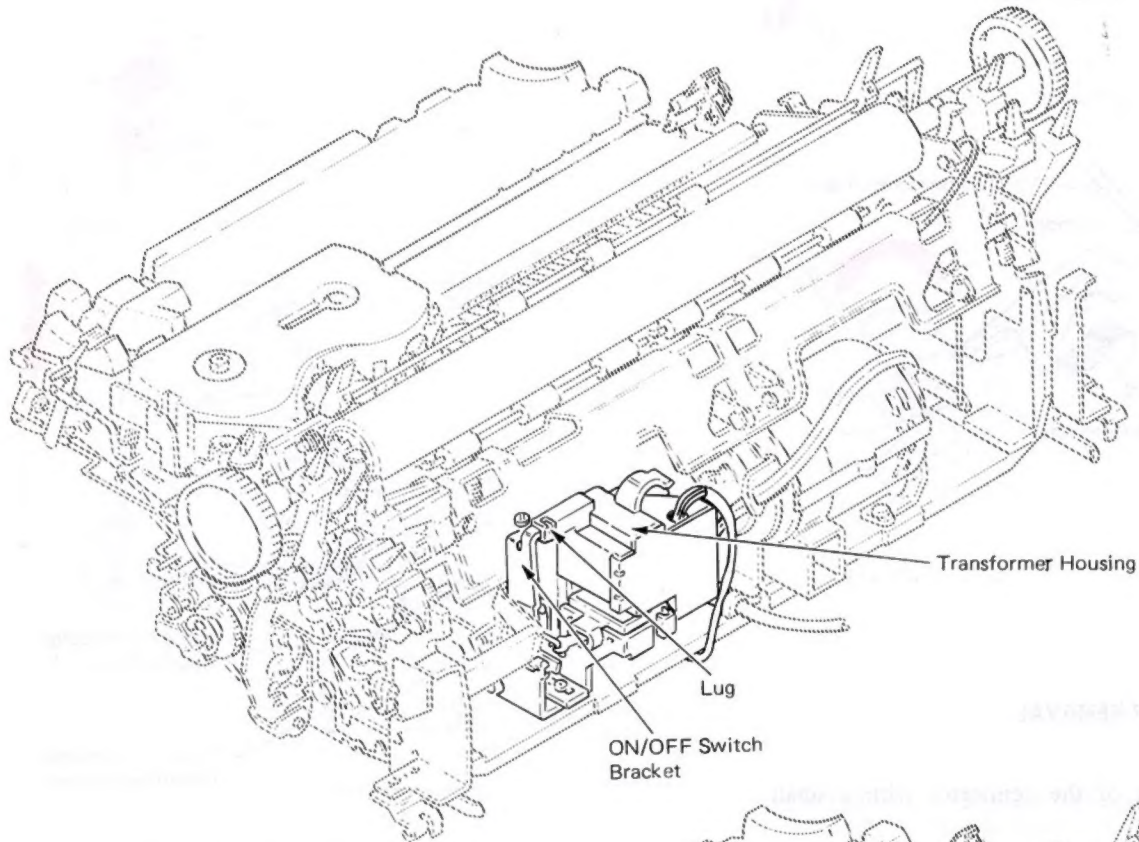
PAGE-END INDICATOR MOUNTING BRACKET REMOVAL

1. Remove the page-end indicator by pulling the indicator straight upward.
2. Remove the page-end indicator mounting bracket by pulling forward on the page-end indicator mounting lugs and pushing down on the top of the page-end indicator mounting bracket.

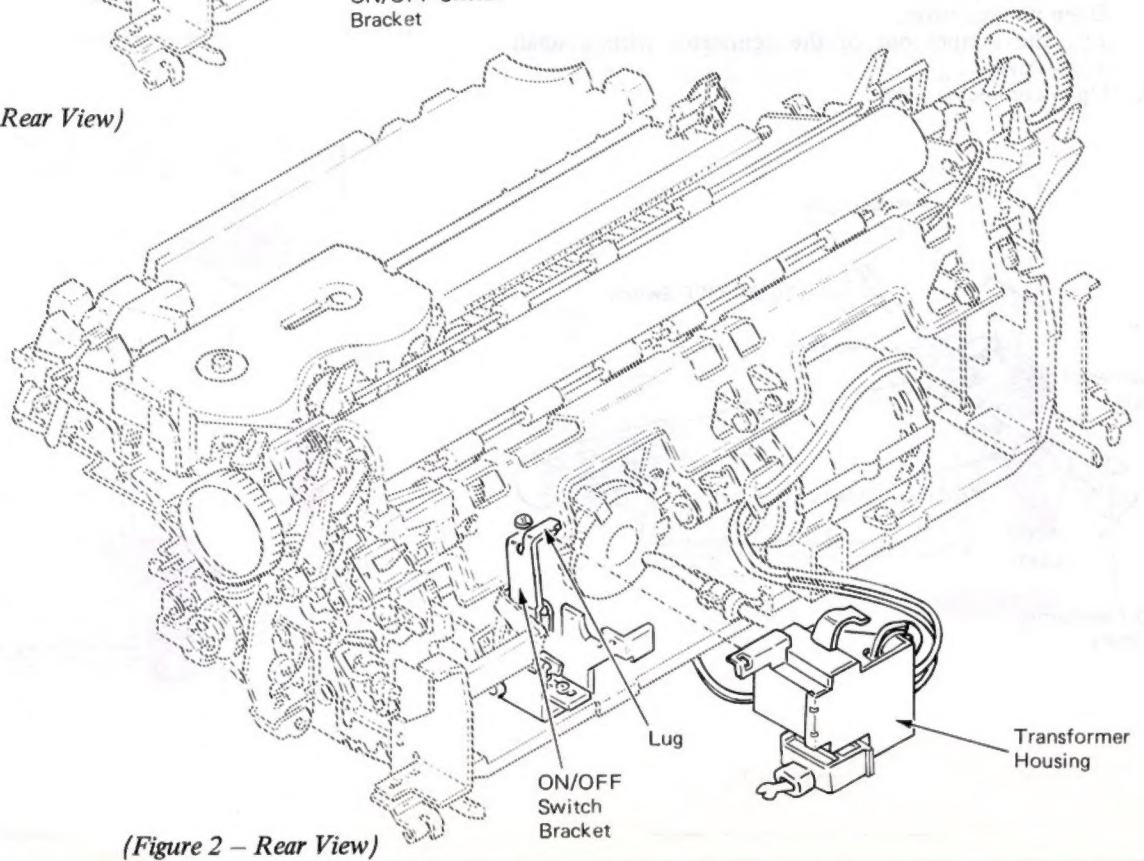


TRANSFORMER HOUSING REMOVAL

1. Disconnect the machine from the power outlet.
2. Move the top of the housing to the right (looking from the rear) until it clears the lug of the ON/OFF switch bracket (Figure 1).
3. Pivot the transformer housing/switch assembly up and toward the rear, while disconnecting the ON/OFF switch link (Figure 2).



(Figure 1 – Rear View)



(Figure 2 – Rear View)